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12AP1/E5 -- Viventia Biotech	AI-201 – AutoImmune
1964 -- Aventis	AI-301 – AutoImmune
20K growth hormone -- AMUR	AIDS vaccine – ANRS, CIBG, Hesed
28P6/E6 -- Viventia Biotech	Biomed, Hollis-Eden, Rome, United
3-Hydroxyphthaloyl-beta-lactoglobulin –	Biomedical, American Home Products,
4-IBB ligand gene therapy –	Maxygen
64-Cu MAb conjugate TETA-1A3 --	airway receptor ligand -- IC Innovations
Mallinckrodt Institute of Radiology	AJvW 2 -- Ajinomoto
64-Cu MAb conjugate TETA-cT84.66	AK 30 NGF -- Alkermes
64-Cu Trastuzumab TETA conjugate –	Albuferon -- Human Genome Sciences
Genentech	albumin – Biogen, DSM Anti-Infectives,
A 200 -- Amgen	Genzyme Transgenics, PPL Therapeutics,
A10255 – Eli Lilly	TranXenoGen, Welfide Corp.
A1PDX – Hederal Therapeutics	aldesleukin -- Chiron
A6 -- Angstrom	alefacept -- Biogen
aaAT-III -- Genzyme	Alemtuzumab –
Abciximab -- Centocor	Allergy therapy -- ALK-Abello/Maxygen,
ABI.001 – Atlantic BioPharmaceuticals	ALK-Abello/RP Scherer
ABT-828 – Abbott	allergy vaccines -- Allergy Therapeutics
Accutin	Alnidofibatide -- Aventis Pasteur
Actinohivin	Alnorine -- SRC VB VECTOR
activin -- Biotech Australia, Human	ALP 242 -- Gruenthal
Therapeutics	Alpha antitrypsin -- Arriva/Hyland
activin -- Curis	Immuno/ProMetic/Protease Sciences
AD 439 – Tanox	Alpha-1 antitrypsin – Cutter, Bayer, PPL
AD 519 – Tanox	Therapeutics, Profile, ZymoGenetics,
Adalimumab -- Cambridge Antibody Tech.	Arriva
Adenocarcinoma vaccine – Biomira -- NIS	Alpha-1 protease inhibitor -- Genzyme
Adenosine A2B receptor antagonists --	Transgenics, Welfide Corp.
Adenosine Therapeutics	Alpha-galactose fusion protein –
ADP-001 – Axis Genetics	Immunomedics
AF 13948 – Affymax	Alpha-galactosidase A -- Research
Afelimomab – Knoll	Corporation Technologies
AFP-SCAN – Immunomedics	Alpha-glucosidase – Genzyme, Novazyme
AG 2195 – Corixa	Alpha-lactalbumin
agalsidase alfa -- Transkaryotic Therapies	Alpha-L-iduronidase -- Transkaryotic
agalsidase beta -- Genzyme	Therapies, BioMarin
AGENT – Antisoma	alteplase -- Genentech
AI 300 – AutoImmune	alvircept sudotox -- NIH
AI-101 – Teva	ALX1-11 – sNPS Pharmaceuticals
AI-102 – Teva	Alzheimer's disease gene therapy –

FIG. 1A

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AM-133 -- AMRAD	Anti-B4 MAb-DC1 conjugate -- ImmunoGen
Amb a 1 immunostim conj. -- Dynavax	Anti-B7 antibody PRIMATIZED -- IDEC
AMD 3100 -- AnorMED -- NIS	Anti-B7-1 MAb 16-10A1
AMD 3465 -- AnorMED -- NIS	Anti-B7-1 MAb 1G10
AMD 3465 -- AnorMED -- NIS	Anti-B7-2 MAb GL-1
AMD Fab -- Genentech	Anti-B7-2-gelonin immunotoxin --
Amediplase -- Menarini, Novartis	Antibacterials/antifungals --
AM-F9	Diversa/IntraBiotics
Amoebiasis vaccine	Anti-beta-amyloid monoclonal antibodies --
Amphiregulin -- Octagene	Cambridge Antibody Tech., Wyeth-Ayerst
anakinra -- Amgen	Anti-BLyS antibodies -- Cambridge
analgesic -- Nobex	Antibody Tech. /Human Genome Sciences
ancestim -- Amgen	Antibody-drug conjugates -- Seattle
AnergiX.RA -- Corixa, Organon	Genetics/Eos
Angiocidin -- InKine	Anti-C5 MAb BB5-1 -- Alexion
angiogenesis inhibitors -- ILEX	Anti-C5 MAb N19-8 -- Alexion
AngioMab -- Antisoma	Anti-C8 MAb
Angiopoietins -- Regeneron/Procter & Gamble	anticancer cytokines -- BioPulse
angiostatin -- EntreMed	anticancer matrix -- Telios Integra
Angiostatin/endostatin gene therapy -- Genetix Pharmaceuticals	Anticancer monoclonal antibodies -- ARIUS, Immunex
angiotensin-II, topical -- Maret	anticancer peptides -- Maxygen, Micrologix
Anthrax -- EluSys Therapeutics/US Army Medical Research Institute	Anticancer prodrug Tech. -- Alexion
Anthrax vaccine	Antibody Technologies
Anti platelet-derived growth factor D human monoclonal antibodies -- CuraGen	anticancer Troy-Bodies -- Affite -- Affitech
Anti-17-1A MAb 3622W94 -- GlaxoSmithKline	anticancer vaccine -- NIH
Anti-2C4 MAb -- Genentech	anticancers -- Epimmune
anti-4-1BB monoclonal antibodies -- Bristol- Myers Squibb	Anti-CCR5/CXCR4 sheep MAb -- KS Biomedix Holdings
Anti-Adhesion Platform Tech. -- Cytovax	Anti-CD11a MAb KBA --
Anti-adipocyte MAb -- Cambridge Antibody Tech./Obesys	Anti-CD11a MAb M17
antiallergics -- Maxygen	Anti-CD11a MAb TA-3 --
antiallergy vaccine -- Acambis	Anti-CD11a MAb WT.1 --
Anti-alpha-4-integrin MAb	Anti-CD11b MAb -- Pharmacia
Anti-angiogenesis monoclonal antibodies -- KS Biomedix/Schering AG	Anti-CD11b MAb LM2
	Anti-CD154 MAb -- Biogen
	Anti-CD16-anti-CD30 MAb -- Biotest
	Anti-CD18 MAb -- Pharmacia
	Anti-CD19 MAb B43 --
	Anti-CD19 MAb -liposomal sodium butyrate conjugate --

FIG. 1B

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Anti-CD19 MAb-saporin conjugate –	Anti-CD4 MAb KT6
Anti-CD19-dsFv-PE38-immunotoxin –	Anti-CD4 MAb OX38
Anti-CD2 MAb 12-15 –	Anti-CD4 MAb PAP conjugate -- Bristol-Myers Squibb
Anti-CD2 MAb B-E2 -- Diaclone	Anti-CD4 MAb RIB 5-2
Anti-CD2 MAb OX34 –	Anti-CD4 MAb W3/25
Anti-CD2 MAb OX54 –	Anti-CD4 MAb YTA 3.1.2
Anti-CD2 MAb OX55 –	Anti-CD4 MAb YTS 177-9
Anti-CD2 MAb RM2-1	Anti-CD40 ligand MAb 5c8 -- Biogen
Anti-CD2 MAb RM2-2	Anti-CD40 MAb
Anti-CD2 MAb RM2-4	Anti-CD40 MAb 5D12 – Tanox
Anti-CD20 MAb BCA B20	Anti-CD44 MAb A3D8
Anti-CD20-anti-Fc alpha RI bispecific MAb – Medarex, Tenovus	Anti-CD44 MAb GKWA3
Anti-CD22 MAb-saporin-6 complex –	Anti-CD44 MAb IM7
Anti-CD3 immunotoxin –	Anti-CD44 MAb KM81
Anti-CD3 MAb 145-2C11 -- Pharming	Anti-CD44 variant monoclonal antibodies -- Corixa/Hebrew University
Anti-CD3 MAb CD4IgG conjugate -- Genentech	Anti-CD45 MAb BC8-I-131
Anti-CD3 MAb humanised – Protein Design, RW Johnson	Anti-CD45RB MAb
Anti-CD3 MAb WT32	Anti-CD48 MAb HuLy-m3
Anti-CD3 MAb-ricin-chain-A conjugate –	Anti-CD48 MAb WM-63
Anti-CD3 MAb-xanthine-oxidase conjugate –	Anti-CD5 MAb -- Becton Dickinson
Anti-CD30 MAb BerH2 -- Medac	Anti-CD5 MAb OX19
Anti-CD30 MAb-saporin conjugate	Anti-CD6 MAb
Anti-CD30-scFv-ETA'-immunotoxin	Anti-CD7 MAb-PAP conjugate
Anti-CD38 MAb AT13/5	Anti-CD7 MAb-ricin-chain-A conjugate
Anti-CD38 MAb-saporin conjugate	Anti-CD8 MAb – Amerimmune, Cytodyn, Becton Dickinson
Anti-CD3-anti-CD19 bispecific MAb	Anti-CD8 MAb 2-43
Anti-CD3-anti-EGFR MAb	Anti-CD8 MAb OX8
Anti-CD3-anti-interleukin-2-receptor MAb	Anti-CD80 MAb P16C10 -- IDEC
Anti-CD3-anti-MOV18 MAb -- Centocor	Anti-CD80 MAb P7C10 -- ID Vaccine
Anti-CD3-anti-SCLC bispecific MAb	Anti-CD8-idarubicin conjugate
Anti-CD4 idiotype vaccine	Anti-CEA MAb CE-25
Anti-CD4 MAb – Centocor, IDEC Pharmaceuticals, Xenova Group	Anti-CEA MAb MN 14 – Immunomedics
Anti-CD4 MAb 16H5	Anti-CEA MAb MN14-PE40 conjugate – Immunomedics
Anti-CD4 MAb 4162W94 -- GlaxoSmithKline	Anti-CEA MAb T84.66-interleukin-2 conjugate
Anti-CD4 MAb B-F5 -- Diaclone	Anti-CEA sheep MAb -- KS Biomedix Holdings
Anti-CD4 MAb GK1-5	

FIG. 1C

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- | | |
|--|---|
| Anti-cell surface monoclonal antibodies -- Cambridge Antibody Tech. /Pharmacia | Anti-HIV antibody -- Epocyte |
| Anti-c-erbB2-anti-CD3 bifunctional MAb -- Otsuka | anti-HIV catalytic antibody -- Hesed Biomed |
| Anti-CMV MAb -- Scotgen | anti-HIV fusion protein -- Idun |
| Anti-CTLA-4 MAb | anti-HIV proteins -- Cangene |
| Anti-EGFR catalytic antibody -- Hesed Biomed | Anti-HM1-24 MAb -- Chugai |
| anti-EGFR immunotoxin -- IVAX | Anti-hR3 MAb |
| Anti-EGFR MAb -- Abgenix | Anti-Human-Carcinoma-Antigen MAb -- Epocyte |
| Anti-EGFR MAb 528 | Anti-ICAM-1 MAb -- Boehringer Ingelheim |
| Anti-EGFR MAb KSB 107 -- KS Biomedix | Anti-ICAM-1 MAb 1A-29 -- Pharmacia |
| Anti-EGFR MAb-DM1 conjugate -- ImmunoGen | Anti-ICAM-1 MAb HA58 |
| Anti-EGFR MAb-LA1 -- | Anti-ICAM-1 MAb YN1/1.7.4 |
| Anti-EGFR sheep MAb -- KS Biomedix | Anti-ICAM-3 MAb ICM3 -- ICOS |
| Anti-FAP MAb F19-I-131 | Anti-idiotype breast cancer vaccine 11D10 |
| Anti-Fas IgM MAb CH11 | Anti-idiotype breast cancer vaccine |
| Anti-Fas MAb Jo2 | ACA14C5 -- |
| Anti-Fas MAb RK-8 | Anti-idiotype cancer vaccine -- ImClone |
| Anti-Flt-1 monoclonal antibodies -- ImClone | Systems/Merck KGaA ImClone, Viventia |
| Anti-fungal peptides -- State University of New York | Biotech |
| antifungal tripeptides -- BTG | Anti-idiotype cancer vaccine 1A7 -- Titan |
| Anti-ganglioside GD2 antibody-interleukin-2 fusion protein -- Lexigen | Anti-idiotype cancer vaccine 3H1 -- Titan |
| Anti-GM2 MAb -- Kyowa | Anti-idiotype cancer vaccine TriAb -- Titan |
| Anti-GM-CSF receptor monoclonal antibodies -- AMRAD | Anti-idiotype Chlamydia trachomatis vaccine |
| Anti-gp130 MAb -- Tosoh | 2 Anti-idiotype colorectal cancer vaccine -- Novartis |
| Anti-HCA monoclonal antibodies -- AltaRex/Epigen | Anti-idiotype colorectal cancer vaccine -- Onyx |
| Anti-hCG antibodies -- Abgenix/AVI BioPharma | Anti-idiotype melanoma vaccine -- IDEC Pharmaceuticals |
| Anti-heparanase human monoclonal antibodies -- Oxford Glycosciences/Medarex | Anti-idiotype ovarian cancer vaccine ACA 125 |
| Anti-hepatitis C virus human monoclonal antibodies -- XTL Biopharmaceuticals | Anti-idiotype ovarian cancer vaccine AR54 - AltaRex |
| Anti-HER-2 antibody gene therapy | Anti-idiotype ovarian cancer vaccine CA-125 -- AltaRex, Biomira |
| Anti-herpes antibody -- Epocyte | Anti-IgE catalytic antibody -- Hesed Biomed |
| | Anti-IgE MAb E26 -- Genentech |
| | Anti-IGF-1 MAb |
| | anti-inflammatory -- GeneMax |
| | anti-inflammatory peptide -- BTG |

FIG. 1D

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anti-integrin peptides -- Burnha	Anti-mu MAb -- Novartis
Anti-interferon-alpha-receptor MAb 64G12 -- Anti-MUC-1 MAb	
Pharma Pacific Management	Anti-Nogo-A MAb IN1
Anti-interferon-gamma MAb -- Protein Design Labs	Anti-nuclear autoantibodies -- Procyon
Anti-interferon-gamma polyclonal antibody - Advanced Biotherapy	Anti-ovarian cancer monoclonal antibodies - Dompe
Anti-interleukin-10 MAb --	Anti-p185 monoclonal antibodies
Anti-interleukin-12 MAb --	Anti-p43 MAb
Anti-interleukin-1-beta polyclonal antibody -- R&D Systems	Antiparasitic vaccines
Anti-interleukin-2 receptor MAb 2A3	Anti-PDGFB/bFGF sheep MAb -- KS Biomedix
Anti-interleukin-2 receptor MAb 33B3-1 -- Immunotech	Anti-properdin monoclonal antibodies -- Abgenix/Gliatech
Anti-interleukin-2 receptor MAb ART-18	Anti-PSMA MAb J591 -- BZL Biologics
Anti-interleukin-2 receptor MAb LO-Tact-1	Anti-Rev MAb gene therapy --
Anti-interleukin-2 receptor MAb Mikbeta1	Anti-RSV antibodies -- Epocyte, Intracell
Anti-interleukin-2 receptor MAb NDS61	Anti-RSV monoclonal antibodies -- Medarex/MedImmune, Applied Molecular Evolution/MedImmune
Anti-interleukin-4 MAb 11B11	Anti-RSV MAb, inhalation -- Alkermes/MedImmune
Anti-interleukin-5 MAb -- Wallace Laboratories	Anti-RT gene therapy
Anti-interleukin-6 MAb -- Centocor, Diaclone, Pharmadigm	Antisense K-ras RNA gene therapy
Anti-interleukin-8 MAb -- Xenotech	Anti-SF-25 MAb
Anti-JL1 MAb	Anti-sperm antibody -- Epocyte
Anti-Klebsiella sheep MAb -- KS Biomedix Holdings	Anti-Tac(Fv)-PE38 conjugate
Anti-Laminin receptor MAb-liposomal doxorubicin conjugate	Anti-TAPA/CD81 MAb AMP1
Anti-LCG MAb -- Cytoclonal	Anti-tat gene therapy
Anti-lipopolysaccharide MAb -- VitaResc	Anti-TCR-alphabeta MAb H57-597
Anti-L-selectin monoclonal antibodies -- Protein Design Labs, Abgenix, Stanford University	Anti-TCR-alphabeta MAb R73
Anti-MBL monoclonal antibodies -- Alexion/Brigham and Women's Hospital	Anti-tenascin MAb BC-4-I-131
Anti-MHC monoclonal antibodies	Anti-TGF-beta human monoclonal antibodies -- Cambridge Antibody Tech., Genzyme
Anti-MIF antibody humanised -- IDEC, Cytokine PharmaSciences	Anti-TGF-beta MAb 2G7 -- Genentech
Anti-MRSA/VRSA sheep MAb -- KS Biomedix Holdings	Antithrombin III -- Genzyme Transgenics, Aventis, Bayer, Behringwerke, CSL, Myriad
	Anti-Thy1 MAb
	Anti-Thy1.1 MAb

FIG. 1E

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Anti-tissue factor/factor VIIA sheep MAb -- KS Biomedix	ARGENT gene delivery systems -- ARIAD Arresten
Anti-TNF monoclonal antibodies -- Centocor, Chiron, Peptech, Pharacia, Serono	ART-123 -- Asahi Kasei arylsulfatase B -- BioMarin Arylsulfatase B, Recombinant human -- BioMarin
Anti-TNF sheep MAb -- KS Biomedix Holdings	AS 1051 -- Ajinomoto ASI-BCL -- Intracell ATL-101 -- Alizyme atrial natriuretic peptide -- Pharis
Anti-TNFalpha MAb -- Genzyme	Aurintricarboxylic acid-high molecular weight
Anti-TNFalpha MAb B-C7 -- Diaclone	autoimmune disorders -- GPC
Anti-tooth decay MAb -- Planet BioTech.	Biotech/MorphoSys
antitumour RNases -- NIH	Autoimmune disorders and transplant
Anti-VCAM MAb 2A2 -- Alexion	rejection -- Bristol-Myers Squibb/Genzyme
Anti-VCAM MAb 3F4 -- Alexion	Tra
Anti-VCAM-1 MAb	Autoimmune disorders/cancer --
Anti-VEC MAb -- ImClone	Abgenix/Chiron, /CuraGen
Anti-VEGF MAb -- Genentech	Autotaxin
Anti-VEGF MAb 2C3	Avicidin -- NeoRx
Anti-VEGF sheep MAb -- KS Biomedix Holdings	axogenesis factor-1 -- Boston Life Sciences
Anti-VLA-4 MAb HP1/2 -- Biogen	Axokine -- Regeneron
Anti-VLA-4 MAb PS/2	B cell lymphoma vaccine -- Biomira
Anti-VLA-4 MAb R1-2	B7-1 gene therapy --
Anti-VLA-4 MAb TA-2	BABS proteins -- Chiron
Anti-VRE sheep MAb -- KS Biomedix Holdings	BAM-002 -- Novelos Therapeutics
ANUP -- TranXenoGen	Bay-16-9996 -- Bayer
ANUP-1 -- Pharis	Bay-39-9437 -- Bayer
AOP-RANTES -- Senetek	Bay-50-4798 -- Bayer
Apan-CH -- Praecis Pharmaceuticals	BB-10153 -- British Biotech
APC-8024 -- Demegen	BBT-001 -- Bolder BioTech.
ApoA-1 -- Milano, Pharmacia	BBT-002 -- Bolder BioTech.
Apogen -- Alexion	BBT-003 -- Bolder BioTech.
apolipoprotein A1 -- Avanir	BBT-004 -- Bolder BioTech.
Apolipoprotein E -- Bio-Tech. General	BBT-005 -- Bolder BioTech.
Applaggin -- Biogen	BBT-006 -- Bolder BioTech.
aprotinin -- ProdiGene	BBT-007 -- Bolder BioTech.
APT-070C -- AdProTech	BCH-2763 -- Shire
AR 177 -- Aronex Pharmaceuticals	BCSF -- Millenium Biologix
AR 209 -- Aronex Pharmaceuticals, Antigenics	BDNF -- Regeneron -- Amgen
AR545C	

FIG. 1F

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Becaplermin -- Johnson & Johnson, Chiron	BST-3002 -- BioStratum
Bectumomab -- Immunomedics	BTI 322 --
Beta-adrenergic receptor gene therapy -- University of Arkansas	butyrylcholinesterase -- Shire
BI 51013 -- Behringwerke AG	C 6822 -- COR Therapeutics
BIBH 1 -- Boehringer Ingelheim	C1 esterase inhibitor -- Pharming
BIM-23190 -- Beaufour-Ipsen	C3d adjuvant -- AdProTech
birch pollen immunotherapy -- Pharmacia	CAB-2.1 -- Millennium
bispecific fusion proteins -- NIH	calcitonin -- Inhale Therapeutics Systems, Aventis, Genetronics, TranXenoGen, Unigene, Rhone Poulenc Rohrer
Bispecific MAb 2B1 -- Chiron	calcitonin -- oral -- Nobex, Emisphere, Pharmaceutical Discovery
Bitistatin	Calcitonin gene-related peptide -- Asahi Kasei -- Unigene
BIWA 4 -- Boehringer Ingelheim	calcitonin, human -- Suntory
blood substitute -- Northfield, Baxter Int'l.	calcitonin, nasal -- Novartis, Unigene
BLP-25 -- Biomira	calcitonin, Panoderm -- Elan
BLS-0597 -- Boston Life Sciences	calcitonin, Peptitrol -- Shire
BLyS -- Human Genome Sciences	calcitonin, salmon -- Therapicon
BLyS radiolabelled -- Human Genome Sciences	calin -- Biopharm
BM 06021 -- Boehringer Mannheim	Calphobindin I
BM-202 -- BioMarin	calphobindin I -- Kowa
BM-301 -- BioMarin	calreticulin -- NYU
BM-301 -- BioMarin	Campath-1G
BM-302 -- BioMarin	Campath-1M
BMP 2 -- Genetics Institute/Medtronic-Sofamor Danek, Genetics Institute/Collagenesis, Genetics Institute/Yamanouchi	cancer therapy -- Cangene
BMP 2 gene therapy	cancer vaccine -- Aixlie, Aventis Pasteur, Center of Molecular Immunology ,YM
BMP 52 -- Aventis Pasteur, Biopharm	BioSciences, Cytos, Genzyme,
BMP-2 -- Genetics Institute	Transgenics, Globelimmune, Igeneon,
BMS 182248 -- Bristol-Myers Squibb	ImClone, Virogenetics, InterCell, Iomai,
BMS 202448 -- Bristol-Myers Squibb	Jenner Biotherapies, Memorial Sloan-Kettering Cancer Center, Sydney Kimmel
bone growth factors -- IsoTis	Cancer Center, Novavax, Protein Sciences, Argonex, SIGA
BPC-15 -- Pfizer	Cancer vaccine ALVAC-CEA B7.1 --
brain natriuretic peptide --	Aventis Pasteur/Therion Biologics
Breast cancer -- Oxford GlycoSciences/Medarex	Cancer vaccine CEA-TRICOM -- Aventis Pasteur/Therion Biologics
Breast cancer vaccine -- Therion Biologics, Oregon	Cancer vaccine gene therapy -- Cantab Pharmaceuticals
BSSL -- PPL Therapeutics	
BST-2001 -- BioStratum	

FIG. 1G

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Cancer vaccine HER-2/neu -- Corixa	CETP vaccine -- Avant
Cancer vaccine THERATOPE -- Biomira	Cetrorelix
cancer vaccine, PolyMASC -- Valentis	Cetuximab
Candida vaccine -- Corixa, Inhibitex	CGH 400 -- Novartis
Canstatin -- ILEX	CGP 42934 -- Novartis
CAP-18 -- Panorama	CGP 51901 -- Tanox
Cardiovascular gene therapy -- Collateral Therapeutics	CGRP -- Unigene
carperitide -- Suntory	CGS 27913 -- Novartis
Casocidin-1 -- Pharis	CGS 32359 -- Novartis
CAT 152 -- Cambridge Antibody Tech.	Chagas disease vaccine -- Corixa
CAT 192 -- Cambridge Antibody Tech.	chemokines -- Immune Response
CAT 213 -- Cambridge Antibody Tech.	CHH 380 -- Novartis
Catalase-- Enzon	chitinase -- Genzyme, ICOS
Cat-PAD -- Circassia	Chlamydia pneumoniae vaccine -- Antex Biologics
CB 0006 -- Celltech	Chlamydia trachomatis vaccine -- Antex Biologics
CCK(27-32)-- Akzo Nobel	Chlamydia vaccine -- GlaxoSmithKline
CCR2-64I -- NIH	Cholera vaccine CVD 103-HgR -- Swiss Serum and Vaccine Institute Berne
CD, Procept -- Palgent	Cholera vaccine CVD 112 -- Swiss Serum and Vaccine Institute Berne
CD154 gene therapy	Cholera vaccine inactivated oral -- SBL Vaccin
CD39 -- Immunex	Chrysalin -- Chrysalis BioTech.
CD39-L2 -- Hyseq	CI-782 -- Hitachi Kase
CD39-L4 -- Hyseq	Ciliary neurotrophic factor -- Fidia, Roche
CD4 fusion toxin -- Senetek	CIM project -- Active Biotech
CD4 IgG -- Genentech	CL 329753 -- Wyeth-Ayerst
CD4 receptor antagonists -- Pharmacopeia/Progenics	CL22, Cobra -- ML Laboratories
CD4 soluble -- Progenics	Clenoliximab -- IDEC
CD4, soluble -- Genzyme Transgenics	Clostridium difficile antibodies -- Epicyte
CD40 ligand -- Immunex	clotting factors -- Octagene
CD4-ricin chain A -- Genentech	CMB 401 -- Celltech
CD59 gene therapy -- Alexion	CNTF -- Sigma-Tau
CD8 TIL cell therapy -- Aventis Pasteur	Cocaine abuse vaccine -- Cantab, ImmuLogic, Scripps
CD8, soluble -- Avidex	coccidiomycosis vaccine -- Arizo
CD95 ligand -- Roche	collagen -- Type I -- Pharming
CDP 571 -- Celltech	Collagen formation inhibitors -- FibroGen
CDP 850 -- Celltech	
CDP 870 -- Celltech	
CDS-1 -- Ernest Orlando	
Cedelizumab -- Ortho-McNeil	
Cetermin -- Insmed	

FIG. 1H

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Collagen/hydroxyapatite/bone growth factor -- Aventis Pasteur, Biopharm, Orquest	CY 1747 -- Epimmune CY 1748 -- Epimmune
collagenase -- BioSpecifics	Cyanovirin-N
Colorectal cancer vaccine -- Wistar Institute	Cystic fibrosis therapy -- CBR/IVAX
Component B, Recombinant -- Serono	CYT 351
Connective tissue growth factor inhibitors -- FibroGen/Taisho	cytokine Traps -- Regeneron cytokines -- Enzon, Cytoclonal
Contortfostatin	Cytomegalovirus glycoprotein vaccine -- Chiron, Aquila Biopharmaceuticals,
contraceptive vaccine -- Zonagen	Aventis Pasteur, Virogenetics
Contraceptive vaccine hCG	Cytomegalovirus vaccine live -- Aventis
Contraceptive vaccine male reversible -- IMMUCON	Pasteur
Contraceptive vaccine zona pellucida -- Zonagen	Cytosine deaminase gene therapy -- GlaxoSmithKline
Copper-64 labelled MAb TETA-1A3 -- NCI	DA-3003 -- Dong-A
Coralyne	DAB389interleukin-6 -- Senetek
Corsevin M	DAB389interleukin-7
C-peptide analogues -- Schwarz	DAMP ^A -- Incyte Genomics
CPI-1500 -- Consensus	Daniplestim -- Pharmacia
CRF -- Neurobiological Tech.	darbepoetin alfa -- Amgen
cRGDfV pentapeptide --	DBI-3019 -- Diabetogen
CRL 1095 -- CytRx	DCC -- Genzyme
CRL 1336 -- CytRx	DDF -- Hyseq
CRL 1605 -- CytRx	decorin -- Integra, Telios
CS-560 -- Sankyo	defensins -- Large Scale Biology
CSF -- ZymoGenetics	DEGR-Vila
CSF-G -- Hangzhou, Dong-A, Hanmi	Deimmunised antibody 3B6/22 AGEN
CSF-GM -- Cangene, Hunan, LG Chem	Deimmunised anti-cancer antibodies -- Biovation/Viragen
CSF-M -- Zarix	Dendroamide A
CT 1579 -- Merck Frosst	Dengue vaccine -- Bavarian Nordic, Merck
CT 1786 -- Merck Frosst	denileukin diftitox -- Ligand
CT-112 ^A -- BTG	DES-1101 -- Desmos
CTB-134L -- Xenova	desirudin -- Novartis
CTC-111 -- Kaketsuken	desmopressin -- Unigene
CTGF -- FibroGen	Desmoteplase -- Merck, Schering AG
CTLA4-Ig -- Bristol-Myers Squibb	Destabilase
CTLA4-Ig gene therapy --	Diabetes gene therapy -- DeveloGen, Pfizer
CTP-37 -- AVI BioPharma	Diabetes therapy -- Crucell
C-type natriuretic peptide -- Suntory	Diabetes type 1 vaccine -- Diamyd Therapeutics
CVS 995 -- Corvas Intl.	
CX 397 -- Nikko Kyodo	

FIG. 11

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DiaCIM -- YM BioSciences	EGF-P64k vaccine -- Center of Molecular Immunology
dialytic oligopeptides -- Research Corp	EL 246 -- LigoCyte
Diamyd -- Diamyd Therapeutics	elastase inhibitor -- Synergen
DiaPep227 -- Pepgen	elcatonin -- Therapicon
DiavaX -- Corixa	EMD 72000 -- Merck KGaA
Diphtheria tetanus pertussis-hepatitis B vaccine -- GlaxoSmithKline	Emdogain -- BIORA
DIR therapy -- Solis Therapeutics --	emfliermin -- AMRAD
DNase -- Genentech	Emoctakin -- Novartis
Dornase alfa -- Genentech	enamel matrix protein -- BIORA
Dornase alfa, inhalation -- Genentech	Endo III -- NYU
Doxorubicin-anti-CEA MAb conjugate -- Immunomedics	endostatin -- EntreMed, Pharis
DP-107 -- Trimeris	Enhancins -- Micrologix
drotrecogin alfa -- Eli Lilly	Enlimomab -- Isis Pharm.
DTctGMCSF	Enoxaparin sodium -- Pharmuka
DTP-polio vaccine -- Aventis Pasteur	enzyme linked antibody nutrient depletion therapy -- KS Biomedix Holdings
DU 257-KM231 antibody conjugate -- Kyowa	Eosinophil-derived neutralizing agent -- EP-51216 -- Asta Medica
dural graft matrix -- Integra	EP-51389 -- Asta Medica
Duteplase -- Baxter Intl.	EPH family ligands -- Regeneron
DWP-401 -- Daewoong	Epidermal growth factor -- Hitachi Kasei, Johnson & Johnson
DWP-404 -- Daewoong	Epidermal growth factor fusion toxin -- Senetek
DWP-408 -- Daewoong	Epidermal growth factor-genistein --
E coli O157 vaccine -- NIH	EPI-HNE-4 -- Dyax
E21-R -- BresaGen	EPI-KAL2 -- Dyax
Eastern equine encephalitis virus vaccine --	Epoetin-alfa -- Amgen, Dragon Pharmaceuticals, Nanjing Huixin
Echicetin --	Epratuzumab -- Immunomedics
Echinhibin 1 --	Epstein-Barr virus vaccine -- Aviron/SmithKline Beecham, Bioresearch
Echistatin -- Merck	Eptacog alfa -- Novo Nordisk
Echitamine --	Eptifibatide -- COR Therapeutics
EC-SOD -- PPL Therapeutics	erb-38 --
EDF -- Ajinomoto	Erlizumab -- Genentech
EDN derivative -- NIH	
EDNA -- NIH	
Edobacomab -- XOMA	
Edrecolomab -- Centocor	
EF 5077	
Efalizumab -- Genentech	
EGF fusion toxin -- Seragen, Ligand	

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erythropoietin -- Alkermes, ProLease, Dong-Fas TR -- Human Genome Sciences	Felvizumab -- Scotgen
A, Elanex, Genetics Institute, LG Chem, Protein Sciences, Serono, Snow Brand, SRC VB VECTOR, Transkaryotic Therapies	FFR-VIIa -- Novo Nordisk
Erythropoietin Beta -- Hoffman La Roche	FG-001 -- F-Gene
Erythropoietin/Epoetin alfa -- Chugai	FG-002 -- F-Gene
Escherichia coli vaccine -- North American Vaccine, SBL Vaccin, Swiss Serum and Vaccine Institute Berne	FG-004 -- F-Gene
etanercept -- Immunex	FG-005 -- F-Gene
examorelin -- Mediolanum	FGF + fibrin -- Repair
exonuclease VII	Fibrimage -- Bio-Tech. General
F 105 -- Centocor	fibrin-binding peptides -- ISIS Innovation
F-992 -- Fornix	fibrinogen -- PPL Therapeutics, Pharming
Factor IX -- Alpha Therapeutics, Welfide Corp., CSL, genetics Institute/AHP, Pharmacia, PPL Therapeutics	fibroblast growth factor -- Chiron, NYU, Ramot, ZymoGenetics
Factor IX gene therapy -- Cell Genesys	fibrolase conjugate -- Schering AG
Factor VII -- Novo Nordisk, Bayer, Baxter Intl.	Filgrastim -- Amgen
Factor VIIa -- PPL Therapeutics, ZymoGenetics	filgrastim -- PDA modified -- Xencor
Factor VIII -- Bayer Genentech, Beaufour-Ipsen, CLB, Inex, Octagen, Pharmacia, Pharming	FLT-3 ligand -- Immunex
Factor VIII -- PEGylated -- Bayer	FN18 CRM9 --
Factor VIII fragments -- Pharmacia	follistatin -- Biotech Australia, Human Therapeutics
Factor VIII gene therapy -- Targeted Genetics	follitropin alfa -- Alkermes, ProLease, PowderJect, Serono, Akzo Nobel
Factor VIII sucrose formulation -- Bayer, Genentech	Follitropin Beta -- Bayer, Organon
Factor VIII-2 -- Bayer	FP 59
Factor VIII-3 -- Bayer	FSH -- Ferring
Factor Xa inhibitors -- Merck, Novo Nordisk, Mochida	FSH + LH -- Ferring
Factor XIII -- ZymoGenetics	F-spondin -- CeNeS
Factors VIII and IX gene therapy -- Genetics Institute/Targeted Genetics	fusion protein delivery system -- UAB Research Foundation
Famoxin -- Genset	fusion toxins -- Boston Life Sciences
Fas (delta) TM protein -- LXR BioTech.	G 5598 -- Genentech
	GA-II -- Transkaryotic Therapies
	Gamma-interferon analogues -- SRC VB VECTOR
	Ganirelix -- Roche
	gastric lipase -- Meristem
	Gavilimomab --
	G-CSF -- Amgen, SRC VB VECTOR
	GDF-1 -- CeNeS
	GDF-5 -- Biopharm
	GDNF -- Amgen

FIG. 1K

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gelsolin -- Biogen	H5N1 influenza A virus vaccine -- Protein Sciences
Gemtuzumab ozogamicin -- Celltech	haemoglobin -- Biopure
Gene-activated epoetin-alfa -- Aventis	haemoglobin 3011, Recombinant -- Baxter Healthcare
Pharma -- Transkaryotic Therapies	haemoglobin crosfumaril -- Baxter Intl.
Glanzmann thrombasthenia gene therapy --	haemoglobin stabilized -- Ajinomoto
Glatiramer acetate -- Yeda	haemoglobin, recombinant -- Apex
glial growth factor 2 -- CeNeS	HAF -- Immune Response
GLP-1 -- Amylin, Suntory, TheraTech, Watson	Hantavirus vaccine
GLP-1 peptide analogues -- Zealand	HB 19
Pharaceuticals	HBNF -- Regeneron
glucagon -- Eli Lilly, ZymoGenetics	HCC-1 -- Pharis
Glucagon-like peptide-1 7-36 amide --	hCG -- Milkhaus
Suntory	hCG vaccine -- Zonagen
Glucocerebrosidase -- Genzyme	HE-317 -- Hollis-Eden Pharmaceuticals
glutamate decarboxylase -- Genzyme	Heat shock protein cancer and influenza vaccines -- StressGen
Transgenics	Helicobacter pylori vaccine -- Acambis, AstraZeneca/CSL, Chiron, Provalis
Glycoprotein S3 -- Kureha	Helistat-G -- GalaGen
GM-CSF -- Immunex	Hemolink -- Hemosol
GM-CSF tumour vaccine -- PowderJect	heparoietin -- Snow Brand
GnRH immunotherapeutic -- Protherics	heparanase -- InSight
gp75 antigen -- ImClone	heparinase I -- Ibex
gp96 -- Antigenics	heparinase III -- Ibex
GPI 0100 -- Galenica	Hepatitis A vaccine -- American Biogenetic Sciences
GR 4991W93 -- GlaxoSmithKline	Hepatitis A vaccine inactivated
Granulocyte colony-stimulating factor --	Hepatitis A vaccine Nothav -- Chiron
Dong-A	Hepatitis A-hepatitis B vaccine --
Granulocyte colony-stimulating factor	GlaxoSmithKline
conjugate	hepatitis B therapy -- Tripep
grass allergy therapy -- Dynavax	Hepatitis B vaccine -- Amgen, Chiron SpA, Meiji Milk, NIS, Prodeva, PowderJect, Rhein Biotech
GRF1-44 -- ICN	Hepatitis B vaccine recombinant -- Evans Vaccines, Epitec Comblotech, Genentech, MedImmune, Merck Sharp & Dohme, Rhein Biotech, Shantha Biotechnics, Vector, Yeda
Growth Factor -- Chiron, Atrigel, Atrix, Innogenetics, ZymoGenetics, Novo	
growth factor peptides -- Biotherapeutics	
growth hormone -- LG Chem	
growth hormone, Recombinant human -- Serono	
GT 4086 -- Giatech	
GW 353430 -- GlaxoSmithKline	
GW-278884 -- GlaxoSmithKline	
H 11 -- Viventia Biotech.	

FIG. 1L

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Hepatitis B vaccine recombinant TGP 943 -- Takeda	HIV peptides -- American Home Products HIV vaccine -- Applied bioTech., Axis
Hepatitis C vaccine -- Bavarian Nordic, Chiron, Innogenetics Acambis,	Genetics, Biogen, Bristol-Myers Squibb, Genentech, Korea Green Cross, NIS, Oncogen, Protein Sciences Corporation,
Hepatitis D vaccine -- Chiron Vaccines	Terumo, Tonen Corporation, Wyeth-Ayerst, Wyeth-Lederle Vaccines-Malvern, Advanced BioScience Laboratories, Bavarian Nordic, Bavarian Nordic/Statens Serum Institute, GeneCure, Immune Response, Progenics, Therion Biologics, United Biomedical, Chiron
Hepatitis E vaccine recombinant -- Genelabs/GlaxoSmithKline, Novavax	
hepatocyte growth factor – Panorama, Sosei	
hepatocyte growth factor kringle fragments - - EntreMed	
Her-2/Neu peptides -- Corixa	
Herpes simplex glycoprotein DNA vaccine -- Takeda	HIV vaccine vCP1433 -- Aventis Pasteur
Merck, Wyeth-Lederle Vaccines-Malvern, Genentech, GlaxoSmithKline, Chiron,	HIV vaccine vCP1452 -- Aventis Pasteur
	HIV vaccine vCP205 -- Aventis Pasteur
	HL-9 -- American BioScience
Herpes simplex vaccine -- Cantab Pharmaceuticals, CEL-SCI, Henderson Morley	HM-9239 -- Cytran
	HML-103 -- Hemosol
	HML-104 -- Hemosol
Herpes simplex vaccine live -- ImClone Systems/Wyeth-Lederle, Aventis Pasteur	HML-105 -- Hemosol
HGF derivatives -- Dompe	HML-109 -- Hemosol
hIAPP vaccine -- Crucell	HML-110 -- Hemosol
Hib-hepatitis B vaccine -- Aventis Pasteur	HML-121 -- Hemosol
HIC 1	hNLP -- Pharis
HIP-- Altachem	Hookworm vaccine
Hirudins -- Biopharma, Cangene, Dongkook, Japan Energy Corporation, Pharmacia Corporation, SIR International, Sanofi-Synthelabo, Sotragene, Rhein Biotech	host-vector vaccines – Henogen HPM 1 -- Chugai
HIV edible vaccine -- ProdiGene	HPV vaccine -- MediGene
HIV gp120 vaccine -- Chiron, Ajinomoto, GlaxoSmithKline, ID Vaccine, Progenics, VaxGen	HSA -- Meristem
HIV gp120 vaccine gene therapy --	HSF -- StressGen
HIV gp160 DNA vaccine -- PowderJect, Aventis Pasteur, Oncogen, Hyland Immuno, Protein Sciences	HSP carriers --Weizmann, Yeda, Peptor HSPPC-70 -- Antigenics
HIV gp41 vaccine -- Panacos	HSPPC-96 -- pathogen-derived -- Antigenics
HIV HGP-30W vaccine -- CEL-SCI	HSV 863 -- Novartis
HIV immune globulin -- Abbott, Chiron	HTLV-I DNA vaccine
	HTLV-I vaccine
	HTLV-II vaccine -- Access
	HU 901 -- Tanox
	Hu23F2G -- ICOS
	HuHMFG1

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HumaLYM -- Intracell	HuMax-IL15 -- Genmab
Human krebs statika -- Yamanouchi	HYB 190 -- Hybridon
human monoclonal antibodies --	HYB 676 -- Hybridon
Abgenix/Biogen, Abgenix/ Corixa,	I-125 MAb A33 -- Celltech
Abgenix/immunex, Abgenix/Lexicon,	Ibritumomab tiuxetan -- IDEC
Abgenix/ Pfizer, Athersys/Medarex,	IBT-9401 -- Ibex
Biogen/MorphoSys, CAT/Searle,	IBT-9402 -- Ibex
Centocor/Medarex, Corixa/Kirin Brewery,	IC 14 -- ICOS
Corixa/Medarex, Eos BioTech./Medarex,	Idarubicin anti-Ly-2.1 --
Eos/Xenerex, Exelixis/Protein Design	IDEC 114 -- IDEC
Labs, ImmunoGen/ Raven,	IDEC 131 -- IDEC
Medarex/B.Twelve,	IDEC 152 -- IDEC
MorphoSys/ImmunoGen, XTL	IDM 1 -- IDM
Biopharmaceuticals/Dyax,	IDPS -- Hollis-Eden Pharmaceuticals
Human monoclonal antibodies --	iduronate-2-sulfatase -- Transkaryotic
Medarex/Northwest Biotherapeutics,	Therapies
Medarex/Seattle Genetics	IGF/IPB-2-13 -- Pharis
human netrin-1 -- Exelixis	IGN-101 -- Igeneon
human papillomavirus antibodies -- Epicycle	IK HIR02 -- Iketon
Human papillomavirus vaccine -- Biotech	IL-11 -- Genetics Institute/AHP
Australia, IDEC, StressGen	IL-13-PE38 -- NeoPharm
Human papillomavirus vaccine MEDI 501 --	IL-17 receptor -- Immunex
MedImmune/GlaxoSmithKline	IL-18BP -- Yeda
Human papillomavirus vaccine MEDI 503/MEDI 504 --	IL-1Hy1 -- Hyseq
MedImmune/GlaxoSmithKline	IL-1 β -- Celltech
Human papillomavirus vaccine TA-CIN --	IL-1 β adjuvant -- Celltech
Cantab Pharmaceuticals	IL-2 -- Chiron
Human papillomavirus vaccine TA-HPV --	IL-2 + IL-12 -- Hoffman La-Roche
Cantab Pharmaceuticals	IL-6/sIL-6R fusion -- Hadassit
Human papillomavirus vaccine TH-GW --	IL-6R derivative -- Tosoh
Cantab/GlaxoSmithKline	IL-7-Dap 389 fusion toxin -- Ligand
human polyclonal antibodies -- Biosite/Eos	IM-862 -- Cytran
BioTech./ Medarex	IMC-1C11 -- ImClone
human type II anti factor VIII monoclonal	imiglucerase -- Genzyme
antibodies -- ThromboGenics	immune globulin intravenous (human) --
humanised anti glycoprotein Ib murine	Hoffman La Roche
monoclonal antibodies -- ThromboGenics	immune privilege factor -- Proneuron
HumaRAD -- Intracell	Immunocal -- Immunotec
HuMax EGFR -- Genmab	Immunogene therapy -- Briana Bio-Tech
HuMax-CD4 -- Medarex	Immunoliposomal 5-fluorodeoxyuridine-dipalmitate --

FIG. 1N

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immunosuppressant vaccine -- Aixlie
 immunotoxin – Antisoma, NIH
 ImmuRAIT-Re-188 – Immunomedics
 imreg-1 -- Imreg
 infertility -- Johnson & Johnson, E-TRANS
 Influenza virus vaccine -- Aventis Pasteur,
 Protein Sciences
 inhibin -- Biotech Australia, Human
 Therapeutics
 Inhibitory G protein gene therapy
 INKP-2001 -- InKine
 Inolimomab -- Diaclone
 insulin -- Autoimmune, Altea, Biobras,
 BioSante, Bio-Tech. General, Chong Kun
 Dang, Emisphere, Flamel, Provalis, Rhein
 Biotech, TranXenoGen
 insulin (bovine) -- Novartis
 insulin analogue -- Eli Lilly
 Insulin Aspart -- Novo Nordisk
 insulin detemir -- Novo Nordisk
 insulin glargine -- Aventis
 insulin inhaled -- Inhale Therapeutics
 Systems, Alkermes
 insulin oral -- Inovax
 insulin, AeroDose -- AeroGen
 insulin, AERx -- Aradigm
 insulin, BEODAS -- Elan
 insulin, Biphasix -- Helix
 insulin, buccal -- Generex
 insulin, I2R -- Flemington
 insulin, intranasal -- Bentley
 insulin, oral – Nobex, Unigene
 insulin, Orasome -- Endorex
 insulin, ProMaxx -- Epic
 insulin, Quadrant -- Elan
 insulin, recombinant -- Aventis
 insulin, Spiros -- Elan
 insulin, Transfersome -- IDEA
 insulin, Zymo, recombinant -- Novo Nordisk
 insulinotropin -- Scios
 Insulysin gene therapy –
 integrin antagonists -- Merck
 interferon (Alpha2) -- SRC VB VECTOR,
 Viragen, Dong-A, Hoffman La-Roche,
 Genentech
 interferon – BioMedicines, Human Genome
 Sciences
 interferon (Alfa-n3) — Interferon Sciences
 Intl.
 interferon (Alpha), Biphasix -- Helix
 interferon (Alpha) — Amgen, BioNative,
 Novartis, Genzyme Transgenics,
 Hayashibara, Inhale Therapeutics
 Systems, Medusa, Flamel, Dong-A,
 GeneTrol, Nastech, Shantha,
 Wassermann, LG Chem, Sumitomo,
 Aventis, Behring EGIS, Pepgen, Servier,
 Rhein Biotech,
 interferon (Alpha2A)
 interferon (Alpha2B) – Enzon, Schering-
 Plough, Biogen, IDEA
 interferon (Alpha-N1) -- GlaxoSmithKline
 interferon (beta) – Rentschler, GeneTrol,
 Meristem, Rhein Biotech, Toray, Yeda,
 Daiichi, Mochida
 interferon (Beta1A) – Serono, Biogen
 interferon (beta1A),inhale -- Biogen
 interferon (β 1b) -- Chiron
 interferon (tau) -- Pepgen
 Interferon alfacon-1 -- Amgen
 Interferon alpha-2a vaccine
 Interferon Beta 1b -- Schering/Chiron,
 InterMune
 Interferon Gamma -- Boehringer Ingelheim,
 Sheffield, Rentschler, Hayashibara
 interferon receptor , Type I -- Serono
 interferon(Gamma1B) -- Genentech
 Interferon-alpha-2b + ribavirin – Biogen,
 ICN
 Interferon-alpha-2b gene therapy --
 Schering-Plough
 Interferon-con1 gene therapy –

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interleukin-1 antagonists -- Dompe	IPF -- Metabolex
Interleukin-1 receptor antagonist -- Abbott Bioresearch, Pharmacia	IR-501 -- Immune Response
Interleukin-1 receptor type I -- Immunex	ISIS 9125 -- Isis Pharmaceuticals
interleukin-1 receptor Type II -- Immunex	ISURF No. 1554 -- Millennium
Interleukin-10 -- DNAX, Schering-Plough	ISURF No. 1866 -- Iowa State Univer.
Interleukin-10 gene therapy --	ITF-1697 -- Italfarmaco
interleukin-12 -- Genetics Institute, Hoffman La-Roche	IxC 162 -- Ixion
interleukin-13 -- Sanofi	J 695 -- Cambridge Antibody Tech., Genetics Inst., Knoll
interleukin-13 antagonists -- AMRAD	Jagged + FGF -- Repair
Interleukin-13-PE38QQR	JKC-362 -- Phoenix Pharmaceuticals
interleukin-15 -- Immunex	JTP-2942 -- Japan Tobacce
interleukin-16 -- Research Corp	Juman monoclonal antibodies --
interleukin-18 -- GlaxoSmithKline	Medarex/Raven
Interleukin-1-alpha -- Immunex/Roche	K02 -- Axys Pharmaceuticals
interleukin-2 -- SRC VB VECTOR, Ajinomoto, Biomira	Keliximab -- IDEC
Interleukin-3 -- Cangene	Keyhole limpet haemocyanin
Interleukin-4 -- Immunology Ventures, Sanofi Winthrop, Schering-Plough, Immunex/ Sanofi Winthrop, Bayer, Ono	KGF -- Amgen
Interleukin-4 + TNF-Alpha -- NIH	KM 871 -- Kyowa
interleukin-4 agonist -- Bayer	KPI 135 -- Scios
interleukin-4 fusion toxin -- Ligand	KPI-022 -- Scios
Interleukin-4 receptor -- Immunex, Immun	Kringle 5
Interleukin-6 -- Ajinomoto, Cangene, Yeda, Genetics Institute, Novartis	KSB 304
interleukin-6 fusion protein --	KSB-201 -- KS Biomedix
interleukin-6 fusion toxin -- Ligand, Serono	L 696418 -- Merck
interleukin-7 -- IC Innovations	L 703801 -- Merck
interleukin-7 receptor -- Immunex	L1 -- Acorda
interleukin-8 antagonists -- Kyowa Hakko/Millennium/Pfizer	L-761191 -- Merck
interleukin-9 antagonists -- Genaera	lactoferrin -- Meristem, Pharming, Agennix
interleukins -- Cel-Sci	lactoferrin cardio -- Pharming
Iodine I 131 tositumomab -- Corixa	LAG-3 -- Serono
ior EPOCIM -- Center of Molecular Immunology	LAIT -- GEMMA
Ior-P3 -- Center of Molecular Immunology	LAK cell cytotoxin -- Arizona
IP-10 -- NIH	Iamellarins -- PharmaMar/University of Malaga
	laminin A peptides -- NIH
	Ianoteplase -- Genetics Institute
	Iaronidase -- BioMarin
	Lassa fever vaccine
	LCAT -- NIH
	LDP 01 -- Millennium

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- LDP 02 -- Millennium
- Lecithinized superoxide dismutase -- Seikagaku
- LeIF adjuvant -- Corixa
- leishmaniasis vaccine -- Corixa
- Ienencercept -- Hoffman La-Roche
- Lenograstim -- Aventis, Chugai
- Iepirudin -- Aventis
- leptin -- Amgen, IC Innovations
- Leptin gene therapy -- Chiron Corporation
- leptin, 2nd-generation -- Amgen
- Ieridistim -- Pharmacia
- Ieuprolide, ProMaxx -- Epic
- Ieuprorelin, oral -- Unigene
- LeuTech -- Papatin
- LEX 032 -- SuperGen
- LiDEPT -- Novartis
- lipase -- Altus Biologics
- lipid A vaccine -- EntreMed
- lipid-linked anchor Tech. -- ICRT, ID Biomedical
- liposome-CD4 Tech. -- Sheffield
- Listeria monocytogenes vaccine
- LMB 1
- LMB 7
- LMB 9 -- Battelle Memorial Institute, NIH
- LM-CD45 -- Cantab Pharmaceuticals
- lovastatin -- Merck
- LSA-3
- LT- β receptor -- Biogen
- lung cancer vaccine -- Corixa
- Iusupultide -- Scios
- L-Vax -- AVAX
- LY 355455 -- Eli Lilly
- LY 366405 -- Eli Lilly
- LY-355101 -- Eli Lilly
- Lyme disease DNA vaccine -- Vical/Aventis Pasteur
- Lyme disease vaccine -- Aquila Biopharmaceuticals, Aventis, Pasteur, Symbicom, GlaxoSmithKline, Hyland Immuno, MedImmune
- Lymphocytic choriomeningitis virus vaccine lymphoma vaccine -- Biomira, Genitope LYP18
- lys plasminogen, recombinant
- Lysosomal storage disease gene therapy -- Avigen
- lysostaphin -- Nutrition 21
- M 23 -- Gruenthal
- M1 monoclonal antibodies -- Acorda Therapeutics
- MA 16N7C2 -- Corvas Intl.
- malaria vaccine -- GlaxoSmithKline, AdProTech, Antigenics, Apovia, Aventis Pasteur, Axis Genetics, Behringwerke, CDCP, Chiron Vaccines, Genzyme Transgenics, Hawaii, MedImmune, NIH, NYU, Oxxon, Roche/Saramane, Biotech Australia, Rx Tech
- Malaria vaccine CDC/NIIMALVAC-1
- malaria vaccine, multicomponent
- mammaglobin -- Corixa
- mammastatin -- Biotherapeutics
- mannan-binding lectin -- Natlmmu
- mannan-MUC1 -- Psiron
- MAP 30
- Marinovir -- Phytera
- MARstem -- Maret
- MB-015 -- Mochida
- MBP -- ImmuLogic
- MCI-028 -- Mitsubishi-Tokyo
- MCIF -- Human Genome Sciences
- MDC -- Advanced BioScience -- Akzo Nobel, ICOS
- MDX 11 -- Medarex
- MDX 210 -- Medarex
- MDX 22 -- Medarex
- MDX 22

FIG. 1Q

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MDX 240 -- Medarex	Methionine lyase gene therapy --
MDX 33	AntiCancer
MDX 44 -- Medarex	Met-RANTES -- Genexa Biomedical,
MDX 447 -- Medarex	Serono
MDX H210 -- Medarex	Metreleptin
MDX RA -- Houston BioTech., Medarex	MGDF -- Kirin
ME-104 -- Pharmexa	MGV -- Progenics
Measles vaccine	micrin -- Endocrine
Mecasermin -- Cephalon/Chiron, Chiron	microplasmin -- ThromboGenics
MEDI 488 -- MedImmune	MIF -- Genetics Institute
MEDI 500	migration inhibitory factor -- NIH
MEDI 507 -- BioTransplant	Mim CD4.1 -- Xycte Therapies
melanin concentrating hormone -- Neurocrine Biosciences	mirostipen -- Human Genome Sciences
melanocortins -- OMRF	MK 852 -- Merck
Melanoma monoclonal antibodies -- Viragen	Mobenakin -- NIS
melanoma vaccine -- GlaxoSmithKline, Akzo Nobel, Avant, Aventis Pasteur, Bavarian Nordic, Biovector, CancerVax, Genzyme Molecular Oncology, Humbolt, ImClone Systems, Memorial, NYU, Oxxon	molgramostim -- Genetics Institute, Novartis monoclonal antibodies -- Abgenix/Celltech, Immusol/ Medarex, Viragen/ Roslin Institute, Cambridge Antibody Tech./Elan MAb 108 --
Melanoma vaccine Magevac -- Therion	MAb 10D5 --
memory enhancers -- Scios	MAb 14.18-interleukin-2 immunocytokine -- Lexigen
meningococcal B vaccine -- Chiron	MAb 14G2a --
meningococcal vaccine -- CAMR	MAb 15A10 --
Meningococcal vaccine group B conjugate - North American Vaccine	MAb 170 -- Biomira
Meningococcal vaccine group B recombinant -- BioChem Vaccines, Microscience	MAb 177Lu CC49 --
Meningococcal vaccine group Y conjugate - North American Vaccine	MAb 17F9
Meningococcal vaccine groups A B and C conjugate -- North American Vaccine	MAb 1D7
Mepolizumab -- GlaxoSmithKline	MAb 1F7 -- Immune Network
Metastatin -- EntreMed, Takeda	MAb 1H10-doxorubicin conjugate
Met-CkB7 -- Human Genome Sciences	MAb 26-2F
met-enkephalin -- TNI	MAb 2A11
METH-1 -- Human Genome Sciences	MAb 2E1 -- RW Johnson
methioninase -- AntiCancer	MAb 2F5
	MAb 31.1 -- International Biolimmune Systems
	MAb 32 -- Cambridge Antibody Tech., Peptech
	MAb 323A3 -- Centocor
	MAb 3C5

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MAb 3F12	MAb C242-PE conjugate
MAb 3F8	MAb c30-6
MAb 42/6	MAb CA208-cytorhodin-S conjugate --
MAb 425 -- Merck KGaA	Hoechst Japan
MAb 447-52D -- Merck Sharp & Dohme	MAb CC49 -- Enzon
MAb 45-2D9-- haematoporphyrin conjugate	MAb ch14.18 --
MAb 4B4	MAb CH14.18-GM-CSF fusion protein -- Lexigen
MAb 4E3-CPA conjugate -- BCM Oncologia	MAb chCE7
MAb 4E3-daunorubicin conjugate	MAb CI-137 -- AMRAD
MAb 50-6	MAb cisplatin conjugate
MAb 50-61A -- Institut Pasteur	MAb CLB-CD19
MAb 5A8 -- Biogen	MAb CLB-CD19v
MAb 791T/36-methotrexate conjugate	MAb CLL-1 -- Peregrine
MAb 7c11.e8	MAb CLL-1-GM-CSF conjugate
MAb 7E11 C5-selenocystamine conjugate	MAb CLL-1-IL-2 conjugate -- Peregrine
MAb 93KA9 -- Novartis	MAb CLN IgG -- doxorubicin conjugates
MAb A5B7-cisplatin conjugate -- Biodynamics Research, Pharmacia	MAb conjugates -- Tanox
MAb A5B7-I-131	MAb D612
MAb A7	MAb Dal B02
MAb A717 -- Exocell	MAb DC101 -- ImClone
MAb A7-zinostatin conjugate	MAb EA 1 --
MAb ABX-RB2 -- Abgenix	MAb EC708 -- Biovation
MAb ACA 11	MAb EP-5C7 -- Protein Design Labs
MAb AFP-I-131 -- Immunomedics	MAb ERIC-1 -- ICRT
MAb AP1	MAb F105 gene therapy
MAb AZ1	MAb FC 2.15
MAb B3-LysPE40 conjugate	MAb G250 -- Centocor
MAb B4 -- United Biomedical	MAb GA6
MAb B43 Genistein-conjugate	MAb GA733
MAb B43.13-Tc-99m -- Biomира	MAb Gliomab-H -- Viventia Biotech
MAb B43-PAP conjugate	MAb HB2-saporin conjugate
MAb B4G7-gelonin conjugate	MAb HD 37 --
MAb BCM 43-daunorubicin conjugate -- BCM Oncologia	MAb HD37-ricin chain-A conjugate
MAb BIS-1	MAb HNK20 -- Acambis
MAb BMS 181170 -- Bristol-Myers Squibb	MAb huN901-DM1 conjugate -- ImmunoGen
MAb BR55-2	MAb I-131 CC49 -- Corixa
MAb BW494	MAb ICO25
MAb C 242-DM1 conjugate -- ImmunoGen	MAb ICR12-CPG2 conjugate
	MAb ICR-62

FIG. 1S

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MAb IRac-ricin A conjugate	MAb R-24
MAb K1	MAb R-24 α Human GD3 -- Celltech
MAb KS1-4-methotrexate conjugate	MAb RFB4-ricin chain A conjugate
MAb L6 -- Bristol-Myers Squibb, Oncogen	MAb RFT5-ricin chain A conjugate
MAb LiCO 16-88	MAb SC 1
MAb LL2-I-131 -- Immunomedics	MAb SM-3 -- ICRT
MAb LL2-Y-90	MAb SMART 1D10 -- Protein Design Labs
MAb LS2D617 -- Hybritech	MAb SMART ABL 364 -- Novartis
MAb LYM-1-gelonin conjugate	MAb SN6f
MAb LYM-1-I-131	MAb SN6f-deglycosylated ricin A chain conjugate --
MAb LYM-1-Y-90	MAb SN6j
MAb LYM-2 -- Peregrine	MAb SN7-ricin chain A conjugate
MAb M195	MAb T101-Y-90 conjugate -- Hybritech
MAb M195-bismuth 213 conjugate -- Protein Design Labs	MAb T-88 -- Chiron
MAb M195-gelonin conjugate	MAb TB94 -- Cancer ImmunoBiology
MAb M195-I-131	MAb TEC 11
MAb M195-Y-90	MAb TES-23 -- Chugai
MAb MA 33H1 -- Sanofi	MAb TM31 -- Avant
MAb MAD11	MAb TNT-1 -- Cambridge Antibody Tech., Peregrine
MAb MGb2	MAb TNT-3
MAb MINT5	MAb TNT-3 -- IL2 fusion protein --
MAb MK2-23	MAb TP3-At-211
MAb MOC31 ETA(252-613) conjugate	MAb TP3-PAP conjugate --
MAb MOC-31-In-111	MAb UJ13A -- ICRT
MAb MOC-31-PE conjugate	MAb UN3
MAb MR6 --	MAb ZME-018-gelonin conjugate
MAb MRK-16 -- Aventis Pasteur	MAb-BC2 -- GlaxoSmithKline
MAb MS11G6	MAb-DM1 conjugate -- ImmunoGen
MAb MX-DTPA BrE-3	MAb-ricin-chain-A conjugate -- XOMA
MAb MY9	MAb-temoporfin conjugates
MAb Nd2 -- Tosoh	Monopharm C -- Viventia Biotech
MAb NG-1 -- Hygeia	monteplase -- Eisai
MAb NM01 -- Nissin Food	montirelin hydrate -- Gruenenthal
MAb OC 125	moroctocog alfa -- Genetics Institute
MAb OC 125-CMA conjugate	Moroctocog-alfa -- Pharmacia
MAb OKI-1 -- Ortho-McNeil	MP 4
MAb OX52 -- Bioproducts for Science	MP-121 -- Biopharm
MAb PMA5	MP-52 -- Biopharm
MAb PR1	MRA -- Chugai
MAb prost 30	

FIG. 1T

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MS 28168 -- Mitsui Chemicals, Nihon Schering	Neuroprotective vaccine -- University of Auckland
MSH fusion toxin -- Ligand	neurotrophic chimaeras -- Regeneron
MSI-99 -- Genaera	neurotrophic factor -- NsGene, CereMedix
MT 201 -- Micromet	NeuroVax -- Immune Response
Muc-1 vaccine -- Corixa	neurturin -- Genentech
mucosal tolerance -- Aberdeen	neutral endopeptidase -- Genentech
mullerian inhibiting subst	NGF enhancers -- NeuroSearch
muplestim -- Genetics Institute, Novartis, DSM Anti-Infectives	NHL vaccine -- Large Scale Biology
murine MAb -- KS Biomedix	NIP45 -- Boston Life Sciences
Mutant somatropin -- JCR Pharmaceutical	NKI-B20
MV 833 -- Toagosei	NM 01 -- Nissin Food
Mycoplasma pulmonis vaccine	NMI-139 -- NitroMed
Mycoprex -- XOMA	NMMP -- Genetics Institute
myeloperoxidase -- Henogen	NN-2211 -- Novo Nordisk
myostatin -- Genetics Institute	Noggin -- Regeneron
Nacolomab tafenatox -- Pharmacia	Nonacog alfa
nagrestipen -- British Biotech	Norelin -- Biostar
NAP-5 -- Corvas Intl.	Norwalk virus vaccine
NAPc2 -- Corvas Intl.	NRLU 10 -- NeoRx
nartograstim -- Kyowa	NRLU 10 PE -- NeoRx
Natalizumab -- Protein Design Labs	NT-3 -- Regeneron
Nateplase -- NIH, Nihon Schering	NT-4/5 -- Genentech
nateplase -- Schering AG	NU 3056
NBI-3001 -- Neurocrine Biosci.	NU 3076
NBI-5788 -- Neurocrine Biosci.	NX 1838 -- Gilead Sciences
NBI-6024 -- Neurocrine Biosci.	NY ESO-1/CAG-3 antigen -- NIH
Nef inhibitors -- BRI	NYVAC-7 -- Aventis Pasteur
Neisseria gonorrhoea vaccine -- Antex Biologics	NZ-1002 -- Novazyme
Neomycin B-arginine conjugate	obesity therapy -- Nobex
Nerelimomab -- Chiron	OC 10426 -- Ontogen
Nerve growth factor -- Amgen -- Chiron, Genentech	OC 144093 -- Ontogen
Nerve growth factor gene therapy	OCIF -- Sankyo
nesiritide citrate -- Scios	Oct-43 -- Otsuka
neuregulin-2 -- CeNeS	OK PSA - liposomal
neurocan -- NYU	OKT3-gamma-1-ala-ala
neuronal delivery system -- CAMR	OM 991
	OM 992
	Omalizumab -- Genentech
	oncoimmunin-L -- NIH
	Oncolysin B -- ImmunoGen

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Oncolysin CD6 -- ImmunoGen	PAM 4 -- Merck
Oncolysin M -- ImmunoGen	pamiteplase -- Yamanouchi
Oncolysin S -- ImmunoGen	pancreatin, Minitabs -- Eurand
Oncophage -- Antigenics	Pangen -- Fournier
Oncostatin M -- Bristol-Myers Squibb	Pantarin -- Selective Genetics
OncoVax-CL -- Jenner Biotherapies	Parainfluenza virus vaccine -- Pharmacia,
OncoVax-P -- Jenner Biotherapies	Pierre Fabre
onercept -- Yeda	paraoxanase -- Esperion
onychomycosis vaccine -- Boehringer Ingelheim	parathyroid hormone -- Abiogen, Korea Green Cross
opebecan -- XOMA	Parathyroid hormone (1-34) -- Chugai/Suntory
opioids -- Arizona	Parkinson's disease gene therapy -- Cell Genesys/ Ceregene
Oprelvekin -- Genetics Institute	Parvovirus vaccine -- MedImmune
Org-33408 b-- Akzo Nobel	PCP-Scan -- Immunomedics
Orolip DP -- EpiCept	PDGF cocktail -- Theratechnologies
oryzacystatin	peanut allergy therapy -- Dynavax
OSA peptides -- GenSci Regeneration	PEG anti-ICAM MAb -- Boehringer Ingelheim
osteoblast-cadherin GF -- Pharis	PEG asparaginase -- Enzon
Osteocalcin-thymidine kinase gene therapy	PEG glucocerebrosidase
osteogenic protein -- Curis	PEG hirudin -- Knoll
osteopontin -- OraPharma	PEG interferon-alpha-2a -- Roche
osteoporosis peptides -- Integra, Telios	PEG interferon-alpha-2b + ribavirin -- Biogen, Enzon, ICN Pharmaceuticals, Schering-Plough
osteoprotegerin -- Amgen, SnowBrand	PEG MAb A5B7 --
otitis media vaccines -- Antex Biologics	Pegacaristim -- Amgen -- Kirin Brewery -- ZymoGenetics
ovarian cancer -- University of Alabama	Pegaldesleukin -- Research Corp
OX40-IgG fusion protein -- Cantab, Xenova	pegaspargase -- Enzon
P 246 -- Diatide	pegfilgrastim -- Amgen
P 30 -- Alfacell	PEG-interferon Alpha -- Viragen
p1025 -- Active Biotech	PEG-interferon Alpha 2A -- Hoffman La- Roche
P-113 ^A -- Demegen	PEG-Interferon Alpha 2B -- Schering- Plough
P-16 peptide -- Transition Therapeutics	PEG-r-hirudin -- Abbott
p43 -- Ramot	PEG-uricase -- Mountain View
P-50 peptide -- Transition Therapeutics	Pegvisomant -- Genentech
p53 + RAS vaccine -- NIH, NCI	
PACAP(1-27) analogue	
paediatric vaccines -- Chiron	
Pafase -- ICOS	
PAGE-4 plasmid DNA -- IDEC	
PAI-2 -- Biotech Australia, Human Therapeutics	
Palivizumab -- MedImmune	

FIG. 1V

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PEGylated proteins, PolyMASC -- Valentis Pharmaprojects No. 5947 -- StressGen
 PEGylated recombinant native human leptin Pharmaprojects No. 5961 --
 -- Roche
 Pemtumomab Pharmaprojects No. 5962 -- NIH
 Penetratin -- Cyclacel Pharmaprojects No. 5966 -- NIH
 Pepscan -- Antisoma Pharmaprojects No. 5994 -- Pharming
 peptide G -- Peptech, ICRT Pharmaprojects No. 5995 -- Pharming
 peptide vaccine -- NIH ,NCI Pharmaprojects No. 6023 -- IMMUCON
 Pexelizumab Pharmaprojects No. 6063 -- Cytoclonal
 pexiganan acetate -- Genaera Pharmaprojects No. 6073 -- SIDDCO
 Pharmaprojects No. 3179 -- NYU Pharmaprojects No. 6115 -- Genzyme
 Pharmaprojects No. 3390 -- Ernest Orlando Pharmaprojects No. 6227 -- NIH
 Pharmaprojects No. 3417 -- Sumitomo Pharmaprojects No. 6230 -- NIH
 Pharmaprojects No. 3777 -- Acambis Pharmaprojects No. 6236 -- NIH
 Pharmaprojects No. 4209 -- XOMA Pharmaprojects No. 6243 -- NIH
 Pharmaprojects No. 4349 -- Baxter Intl. Pharmaprojects No. 6244 -- NIH
 Pharmaprojects No. 4651 Pharmaprojects No. 6281 -- Senetek
 Pharmaprojects No. 4915 -- Avanir Pharmaprojects No. 6365 -- NIH
 Pharmaprojects No. 5156 -- Rhizogenics Pharmaprojects No. 6368 -- NIH
 Pharmaprojects No. 5200 -- Pfizer Pharmaprojects No. 6373 -- NIH
 Pharmaprojects No. 5215 -- Origene Pharmaprojects No. 6408 -- Pan Pacific
 Pharmaprojects No. 5216 -- Origene Pharmaprojects No. 6410 -- Athersys
 Pharmaprojects No. 5218 -- Origene Pharmaprojects No. 6421 -- Oxford
 Pharmaprojects No. 5267 -- ML
 Laboratories GlycoSciences
 Pharmaprojects No. 5373 -- MorphoSys Pharmaprojects No. 6522 -- Maxygen
 Pharmaprojects No. 5493 -- Metabolex Pharmaprojects No. 6523 -- Pharis
 Pharmaprojects No. 5707 -- Genentech Pharmaprojects No. 6538 -- Maxygen
 Pharmaprojects No. 5728 -- Autogen Pharmaprojects No. 6554 -- APALEXO
 Pharmaprojects No. 5733 -- BioMarin Pharmaprojects No. 6560 -- Ardana
 Pharmaprojects No. 5757 -- NIH Pharmaprojects No. 6562 -- Bayer
 Pharmaprojects No. 5765 -- Gryphon Pharmaprojects No. 6569 -- Eos
 Pharmaprojects No. 5830 -- AntiCancer Phenoxazine
 Pharmaprojects No. 5839 -- Dyax Phenylase -- Ibex
 Pharmaprojects No. 5849 -- Johnson & Pigment epithelium derived factor --
 Johnson plasminogen activator inhibitor-1,
 Pharmaprojects No. 5860 -- Mitsubishi- recombinant -- DuPont Pharmaceuticals
 Tokyo
 Pharmaprojects No. 5869 -- Oxford
 GlycoSciences
 Pharmaprojects No. 5883 -- Asahi Brewery

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Plasminogen activators -- Abbott Laboratories, American Home Products, Boehringer Mannheim, Chiron Corporation, DuPont Pharmaceuticals, Eli Lilly, Shionogi, Genentech, Genetics Institute, GlaxoSmithKline, Hemispherx Biopharma, Merck & Co, Novartis, Pharmacia Corporation, Wakamoto, Yeda
 plasminogen-related peptides -- Bio-Tech. General/MGH
 platelet factor 4 -- RepliGen
 Platelet-derived growth factor -- Amgen -- ZymoGenetics
 plusonermin -- Hayashibara
 PMD-2850 -- Protherics
 Pneumococcal vaccine -- Antex Biologics, Aventis Pasteur
 Pneumococcal vaccine intranasal -- BioChem Vaccines/Biovector
 PR1A3
 PR-39
 pralmorelin -- Kaken
 Pretarget-Lymphoma -- NeoRx
 Priliximab -- Centocor
 PRO 140 -- Progenics
 PRO 2000 -- Procept
 PRO 367 -- Progenics
 PRO 542 -- Progenics
 pro-Apo A-I -- Esperion
 prolactin -- Genzyme
 Prosaptide TX14(A) -- Bio-Tech. General
 prostate cancer antibodies -- Immunex, UroCor
 prostate cancer antibody therapy -- Genentech/UroGenesys, Genotherapeutics
 prostate cancer immunotherapeutics -- The PSMA Development Company
 prostate cancer vaccine -- Aventis Pasteur, Zonagen, Corixa, Dendreon, Jenner Biotherapies, Therion Biologics
 prostate-specific antigen -- EntreMed
 protein A -- RepliGen
 protein adhesives -- Enzon
 protein C -- Baxter Intl., PPL Therapeutics, ZymoGenetics
 protein C activator -- Gilead Sciences
 protein kinase R antags -- NIH
 protirelin -- Takeda
 protocadherin 2 -- Caprion
 Pro-urokinase -- Abbott, Bristol-Myers Squibb, Dainippon, Tosoh -- Welfide
 P-selectin glycoprotein ligand-1 -- Genetics Institute
 pseudomonal infections -- InterMune
 Pseudomonas vaccine -- Cytovax
 PSLG-Ig -- American Home Products
 PSP-94 -- Procyon
 PTH 1-34 -- Nobex
 Quilimmune-M -- Antigenics
 R 101933
 R 125224 -- Sankyo
 RA therapy -- Cardion
 Rabies vaccine recombinant -- Aventis Pasteur, BioChem Vaccines, Kaketsukan Pharmaceuticals
 RadioTheraCIM -- YM BioSciences
 Ramot project No. 1315 -- Ramot
 Ramot project No. K-734A -- Ramot
 Ramot project No. K-734B -- Ramot
 RANK -- Immunex
 ranpirnase -- Alfacell
 ranpirnase-anti-CD22 MAb -- Alfacell
 RANTES inhibitor -- Milan
 RAPID drug delivery systems -- ARIAD
 rasburicase -- Sanofi
 rBPI-21, topical -- XOMA
 RC 529 -- Corixa
 rCFTR -- Genzyme Transgenics
 RD 62198
 rDnase -- Genentech
 RDP-58 -- SangStat

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RecepTox-Fce -- Keryx	Ribozyme gene therapy -- Genset
RecepTox-GnRH -- Keryx, MTR Technologies	Rickettsial vaccine recombinant
RecepTox-MBP -- Keryx, MTR Technologies	RIGScan CR -- Neoprobe
recFSH -- Akzo Nobel, Organon	RIP-3 -- Rigel
REGA 3G12	RK-0202 -- RxKinetix
Regavirumab -- Teijin	RLT peptide -- Esperion
relaxin -- Connetics Corp	rM/NEI -- IVAX
Renal cancer vaccine -- Macropharm	rmCRP -- Immtech
repifermin -- Human Genome Sciences	RN-1001 -- Renovo
Respiratory syncytial virus PFP-2 vaccine -- Wyeth-Lederle	RN-3 -- Renovo
Respiratory syncytial virus vaccine -- GlaxoSmithKline, Pharmacia, Pierre Fabre	RNAse conjugate -- Immunomedics
Respiratory syncytial virus vaccine -- inactivated	RO 631908 -- Roche
Respiratory syncytial virus-parainfluenza virus vaccine -- Aventis Pasteur, Pharmacia	Rotavirus vaccine -- Merck
Reteplase -- Boehringer Mannheim, Hoffman La-Roche	RP 431 -- DuPont Pharmaceuticals
Retropep -- Retroscreen	RP-128 -- Resolution
RFB4 (dsFv) PE38	RPE65 gene therapy --
RFI 641 -- American Home Products	RPR 110173 -- Aventis Pasteur
RFTS -- UAB Research Foundation	RPR 115135 -- Aventis Pasteur
RG 12986 -- Aventis Pasteur	RPR 116258A -- Aventis Pasteur
RG 83852 -- Aventis Pasteur	rPSGL-Ig -- American Home Products
RG-1059 -- RepliGen	r-SPC surfactant -- Byk Gulden
rGCR -- NIH	rV-HER-2/neu -- Therion Biologics
rGLP-1 -- Restoragen	SA 1042 -- Sankyo
rGRF -- Restoragen	sacrosidase -- Orphan Medical
rh Insulin -- Eli Lilly	Sant 7
RHAMM targeting peptides -- Cangene	Sargramostim -- Immunex
rHb1.1 -- Baxter Intl.	saruplase -- Gruenthal
rhCC10 -- Claragen	Satumomab -- Cytogen
rhCG -- Serono	SB 1 -- COR Therapeutics
Rheumatoid arthritis gene therapy	SB 207448 -- GlaxoSmithKline
Rheumatoid arthritis vaccine -- Veterans Affairs Medical Center	SB 208651 -- GlaxoSmithKline
rhLH -- Serono	SB 240683 -- GlaxoSmithKline
	SB 249415 -- GlaxoSmithKline
	SB 249417 -- GlaxoSmithKline
	SB 6 -- COR Therapeutics
	SB RA 31012 --
	SC 56929 -- Pharmacia
	SCA binding proteins -- Curis, Enzon
	scFv(14E1)-ETA Berlex Laboratories, Schering AG
	ScFv(FRP5)-ETA --

FIG. 1Y

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ScFv6C6-PE40 --
 SCH 55700 -- Celltech
 Schistosomiasis vaccine -- Glaxo Wellcome/Medeva, Brazil
 SCPF -- Advanced Tissue Sciences
 scuPA-suPAR complex -- Hadasit
 SD-9427 -- Pharmacia
 SDF-1 -- Ono
 SDZ 215918 -- Novartis
 SDZ 280125 -- Novartis
 SDZ 89104 -- Novartis
 SDZ ABL 364 -- Novartis
 SDZ MMA 383 -- Novartis
 serine protease inhibs -- Pharis
 sermorelin acetate -- Serono
 SERP-1 -- Viron
 sertenef -- Dainippon
 serum albumin, Recombinant human --
 Aventis Behring
 serum-derived factor -- Hadasit
 Sevirumab -- Novartis
 SGN 14 -- Seattle Genetics
 SGN 15 -- Seattle Genetics
 SGN 17/19 -- Seattle Genetics
 SGN 30 -- Seattle Genetics
 SGN-10 -- Seattle Genetics
 SGN-11 -- Seattle Genetics
 SH 306 -- DuPont Pharmaceuticals
 Shanvac-B -- Shantha
 Shigella flexneri vaccine -- Avant, Acambis,
 Novavax
 Shigella sonnei vaccine --
 sICAM-1 -- Boehringer Ingelheim
 Silteplase -- Genzyme
 SIV vaccine -- Endocon, Institut Pasteur
 SK 896 -- Sanwa Kagaku Kenkyusho
 SK-827 -- Sanwa Kagaku Kenkyusho
 Skeletex -- CellFactors
 SKF 106160 -- GlaxoSmithKline
 S-nitroso-AR545C --
 SNTP -- Active Biotech
 somatomedin-1 -- GroPep, Mitsubishi-Tokyo, NIH
 somatomedin-1 carrier protein -- Insmed
 somatostatin -- Ferring
 Somatotropin/
 Human Growth Hormone -- Bio-Tech.
 General, Eli Lilly
 somatropin -- Bio-Tech. General, Alkermes,
 ProLease, Aventis Behring, Biovector,
 Cangene, Dong-A, Eli Lilly, Emisphere,
 Enact, Genentech, Genzyme Transgenics,
 Grandis/InfiMed, CSL, InfiMed, MacroMed,
 Novartis, Novo Nordisk, Pharmacia
 Serono, TranXenoGen
 somatropin derivative -- Schering AG
 somatropin, AIR -- Eli Lilly
 Somatropin, inhaled -- Eli Lilly/Alkermes
 somatropin, Kabi -- Pharmacia
 somatropin, Orasome -- Novo Nordisk
 Sonermin -- Dainippon Pharmaceutical
 SP(V5.2)C -- Supertek
 SPf66
 sphingomyelinase -- Genzyme
 SR 29001 -- Sanofi
 SR 41476 -- Sanofi
 SR-29001 -- Sanofi
 SS1(dsFV)-PE38 -- NeoPharm
 β2 microglobulin -- Avidex
 β2-microglobulin fusion proteins -- NIH
 β-amylid peptides -- CeNeS
 β-defensin -- Pharis
 Staphylococcus aureus infections --
 Inhibitex/ZLB
 Staphylococcus aureus vaccine conjugate --
 Nabi
 Staphylococcus therapy -- Tripep
 Staphylokinase -- Biovation, Prothera,
 Thrombogenetics
 Streptococcal A vaccine -- M6
 Pharmaceuticals, North American Vaccine
 Streptococcal B vaccine -- Microscience

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Streptococcal B vaccine recombinant -- Biochem Vaccines	TFPI -- EntreMed
Streptococcus pyogenes vaccine	TgD-IL-2 -- Takeda
STRL-33 -- NIH	TGF-Alpha -- ZymoGenetics
Subalin -- SRC VB VECTOR	TGF- β -- Kolan
SUIS -- United Biomedical	TGF- β 2 -- Insmed
SUIS-LHRH -- United Biomedical	TGF- β 3 -- OSI
SUN-E3001 -- Suntory	Thalassaemia gene therapy -- Crucell
super high affinity monoclonal antibodies -- YM BioSciences	TheraCIM-h-R3 -- Center of Molecular Immunology, YM BioSciences
Superoxide dismutase -- Chiron, Enzon, Ube Industries, Bio-Tech, Yeda	Theradigm-HBV -- Epimmune
superoxide dismutase-2 -- OXIS	Theradigm-HPV -- Epimmune
suppressin -- UAB Research Foundation	Theradigm-malaria -- Epimmune
SY-161-P5 -- ThromboGenics	Theradigm-melanoma -- Epimmune
SY-162 -- ThromboGenics	TheraFab -- Antisoma
Systemic lupus erythematosus vaccine -- MedClone/VivoRx	ThGRF 1-29 -- Theratechnologies
T cell receptor peptide vaccine	ThGRF 1-44 -- Theratechnologies
T4N5 liposomes -- AGI Dermatics	thrombomodulin -- Iowa, Novocastra
TACI, soluble -- ZymoGenetics	Thrombopoietin -- Dragon Pharmaceuticals, Genentech
targeted apoptosis -- Antisoma	thrombopoietin, Pliva -- Receptron
tasonermin -- Boehringer Ingelheim	Thrombospondin 2 --
TASP	thrombostatin -- Thromgen
TASP-V	thymalfasin -- SciClone
Tat peptide analogues -- NIH	thymocartin -- Gedeon Richter
TBP I -- Yeda	thymosin Alpha1 -- NIH
TBP II	thyroid stimulating hormone -- Genzyme
TBV25H -- NIH	tICAM-1 -- Bayer
Tc 99m ior cea1 -- Center of Molecular Immunology	Tick anticoagulant peptide -- Merck
Tc 99m P 748 -- Diatide	TIF -- Xoma
Tc 99m votumumab -- Intracell	Tifacogin -- Chiron, NIS, Pharmacia
Tc-99m rh-Annexin V -- Theseus Imaging	Tissue factor -- Genentech
teceleukin -- Biogen	Tissue factor pathway inhibitor
tenecteplase -- Genentech	TJN-135 -- Tsumura
Teriparatide -- Armour Pharmaceuticals, Asahi Kasei, Eli Lilly	TM 27 -- Avant
terlipressin -- Ferring	TM 29 -- Avant
testisin -- AMRAD	TMC-151 -- Tanabe Seiyaku
Tetrafibrin -- Roche	TNF tumour necrosis factor -- Asahi Kasei
	TNF Alpha -- CytImmune
	TNF antibody -- Johnson & Johnson
	TNF binding protein -- Amgen
	TNF degradation product -- Oncotech

FIG. 1AA

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TNF receptor -- Immunex	TXU-PAP
TNF receptor 1, soluble -- Amgen	TY-10721 -- TOA Eiyo
TNF Tumour necrosis factor-alpha -- Asahi Kasei, Genetech, Mochida	Type I diabetes vaccine -- Research Corp Typhoid vaccine CVD 908
TNF-Alpha inhibitor -- Tripep	U 143677 -- Pharmacia
TNFR:Fc gene therapy -- Targeted Genetics	U 81749 -- Pharmacia
TNF-SAM2	UA 1248 -- Arizona
ToleriMab -- Innogenetics	UGIF -- Sheffield
Toxoplasma gondii vaccine -- GlaxoSmithKline	UIC 2
TP 9201 -- Telios	UK 101
TP10 -- Avant	UK-279276 -- Corvas Intl.
TP20 -- Avant	urodilatin -- Pharis
tPA -- Centocor	urofollitrophin -- Serono
trafermin -- Scios	uteroferrin-- Pepgen
TRAIL/Apo2L -- Immunex	V 20 -- GLYCODesign
transferrin-binding proteins -- CAMR	V2 vasopressin receptor gene therapy vaccines -- Active Biotech
Transforming growth factor-beta-1 -- Genentech	Varicella zoster glycoprotein vaccine -- Research Corporation Technologies
transport protein -- Genesis	Varicella zoster virus vaccine live -- Cantab Pharmaceuticals
TRH -- Ferring	Vascular endothelial growth factor -- Genentech, University of California
Triabin -- Schering AG	Vascular endothelial growth factors -- R&D Systems
Triconal	vascular targeting agents -- Peregrine
Triflavin	vasopermeation enhancement agents -- Peregrine
troponin I -- Boston Life Sciences	vasostatin -- NIH
TRP-2 ^A -- NIH	VCL -- Bio-Tech, General
trypsin inhibitor -- Mochida	VEGF -- Genentech, Scios
TSP-1 gene therapy -- TT-232	VEGF inhibitor -- Chugai
TT-232	VEGF-2 -- Human Genome Sciences
TTS-CD2 -- Active Biotech	VEGF-Trap -- Regeneron
Tuberculosis vaccine -- Aventis Pasteur, Genesis	viscumin, recombinant -- Madaus
Tumor Targeted Superantigens -- Active Biotech -- Pharmacia	Vitaxin
tumour vaccines -- PhotoCure	Vitrase -- ISTA Pharmaceuticals
tumour-activated prodrug antibody conjugates -- Millennium/ImmunoGen	West Nile virus vaccine -- Bavarian Nordic
tumstatin -- ILEX	WP 652
Tuvirumab -- Novartis	WT1 vaccine -- Corixa
TV-4710 -- Teva	WX-293 -- Wilex BioTech.
TWEAK receptor -- Immunex	

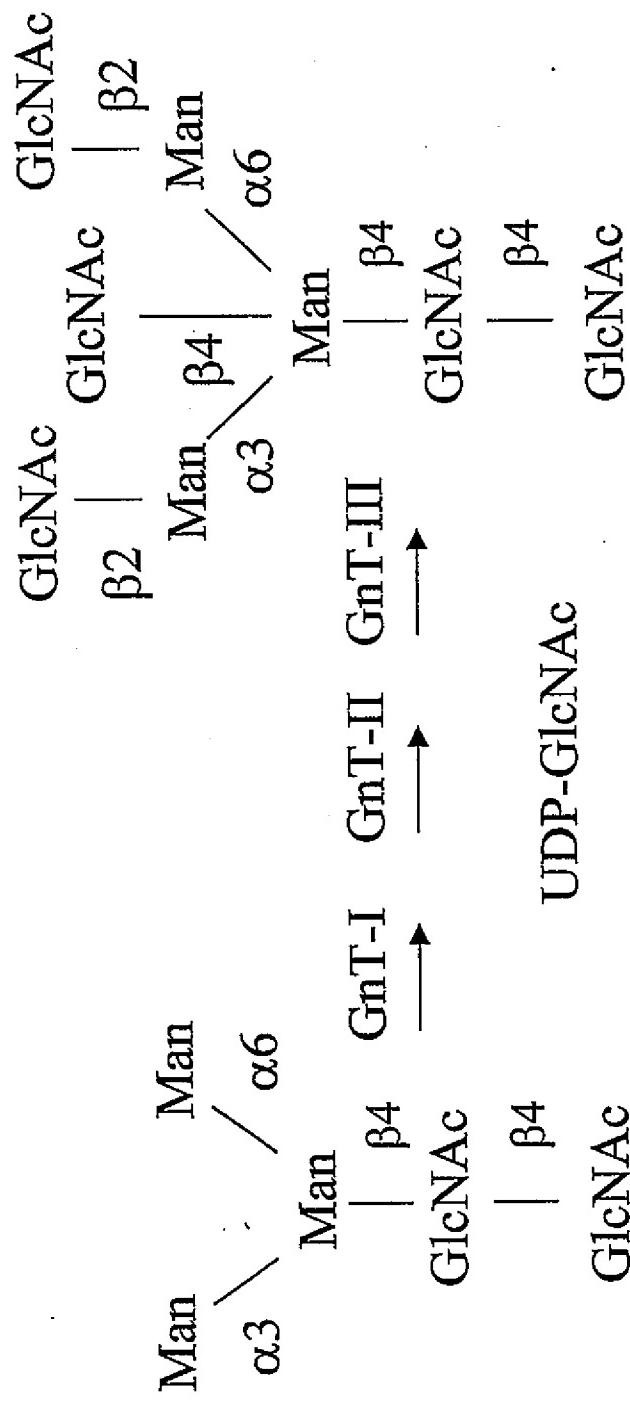
FIG. 1BB

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WX-360 -- Wilex BioTech.
WX-UK1 -- Wilex BioTech.
XMP-500 -- XOMA
XomaZyme-791 -- XOMA
XTL 001 -- XTL Biopharmaceuticals
XTL 002 -- XTL Biopharmaceuticals
yeast delivery system -- GlobelImmune
Yersinia pestis vaccine
YIGSR-Stealth -- Johnson & Johnson
Yissum Project No. D-0460 -- Yissum

YM 207 -- Yamanouchi
YM 337 -- Protein Design Labs
Yttrium-90 labelled biotin
Yttrium-90-labeled anti-CEA MAb T84.66 --
ZD 0490 -- AstraZeneca
ziconotide -- Elan
ZK 157138 -- Berlex Laboratories
Zolimomab aritox
Zorcell -- Immune Response
ZRXL peptides -- Novartis

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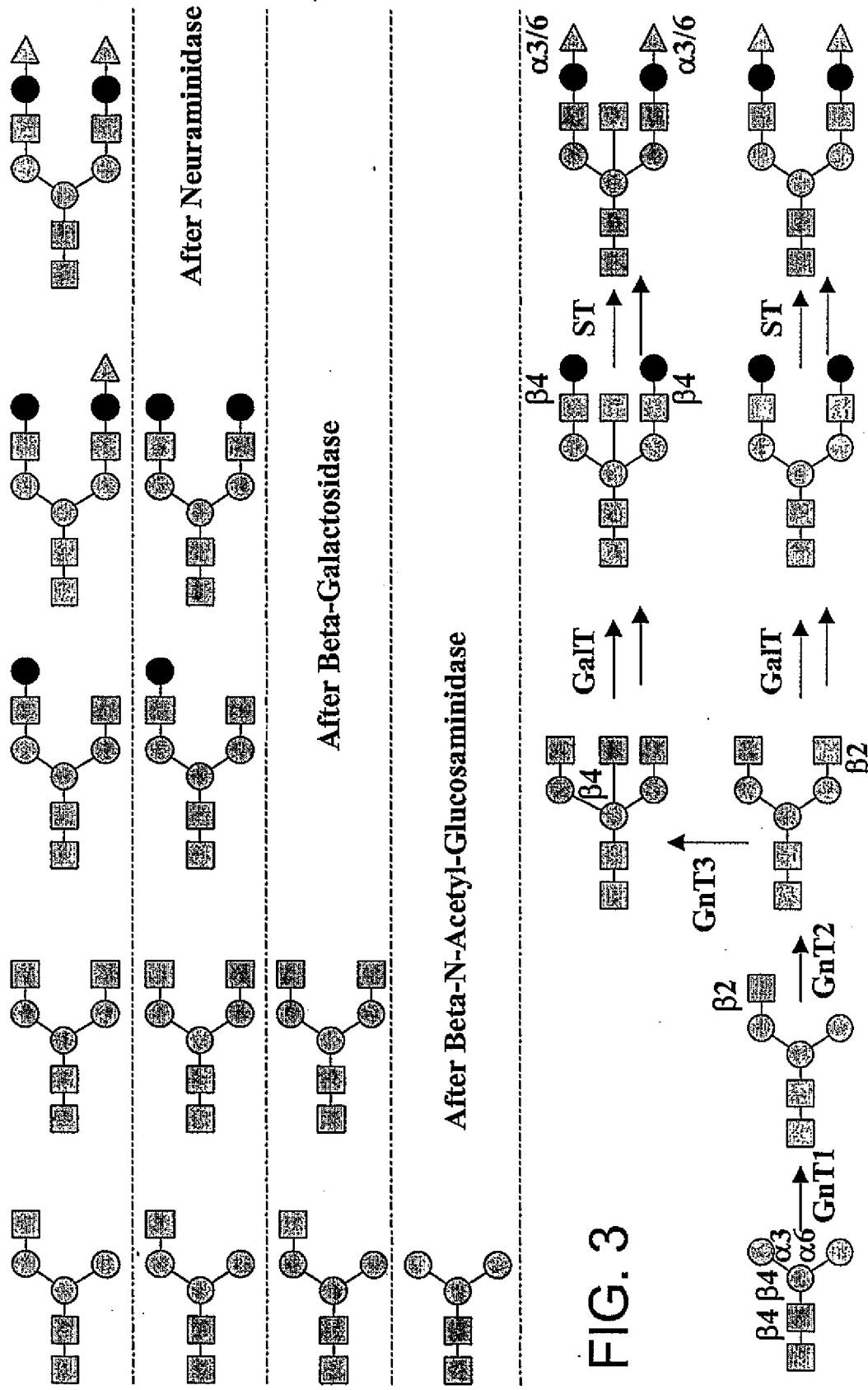


Trimannosyl core with
Bisecting GlcNAc

Trimannosyl core

FIG. 2

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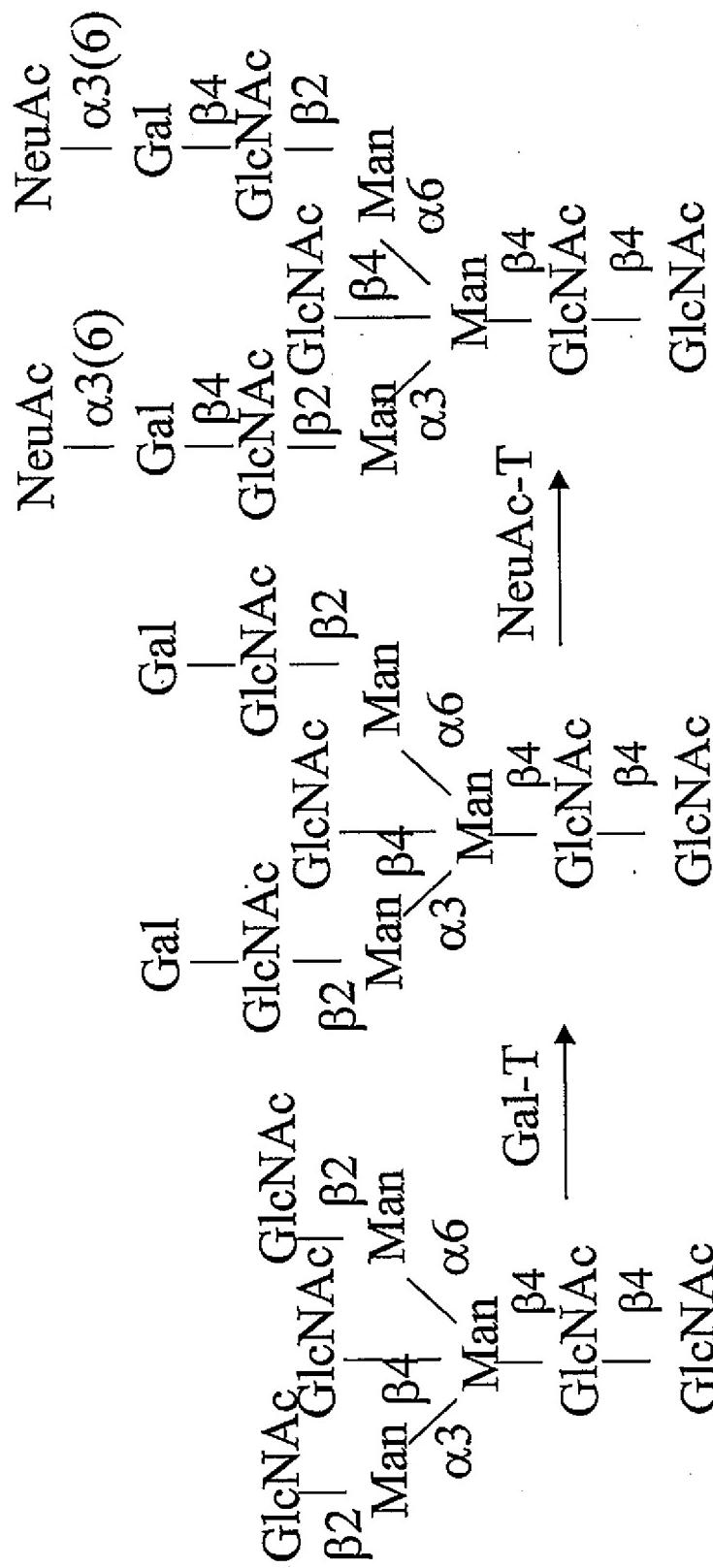


FIG. 4

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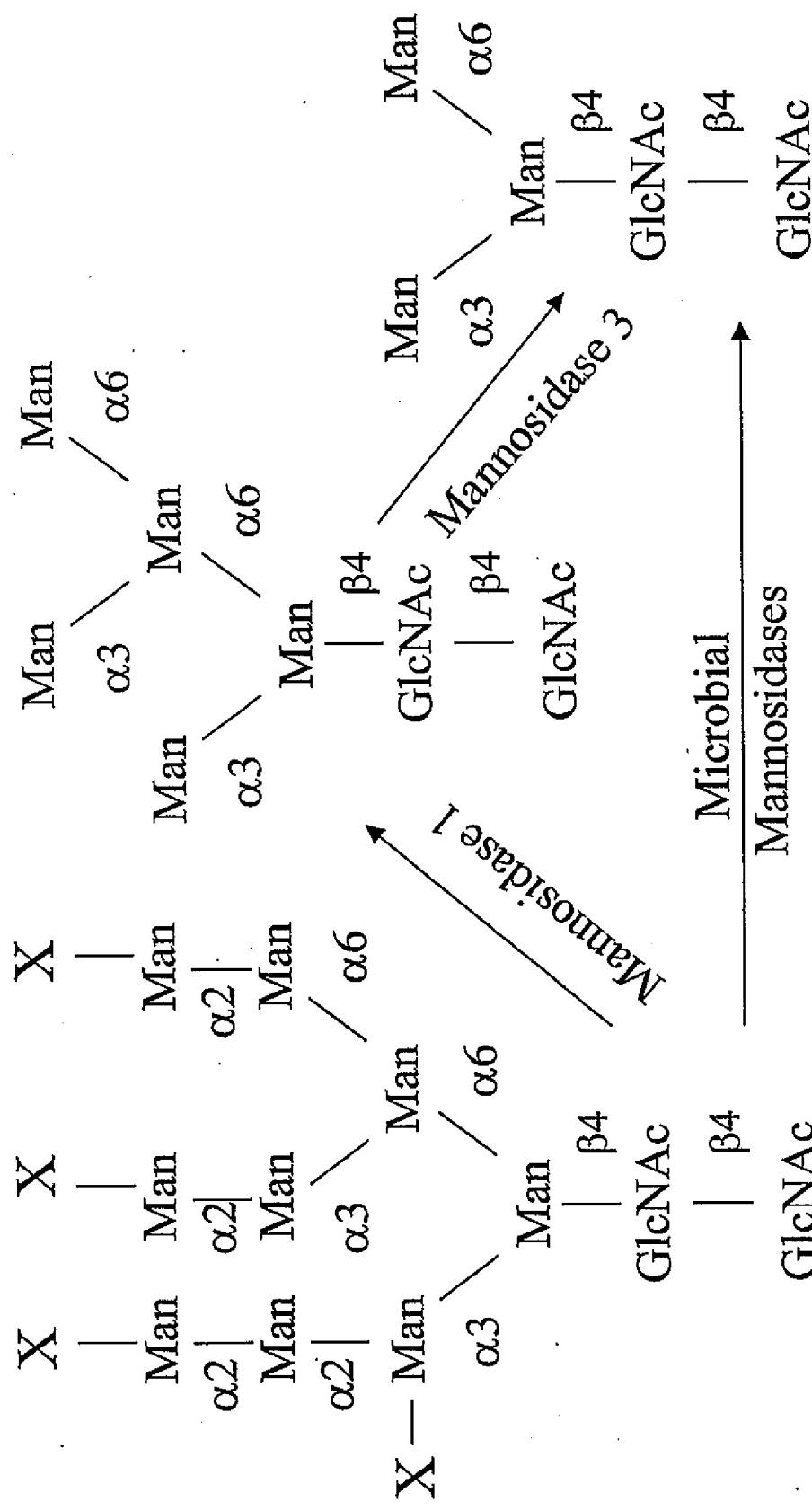


FIG. 5

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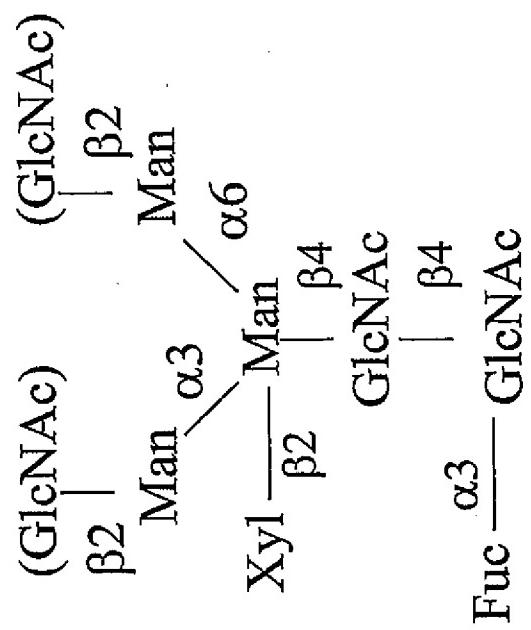


FIG. 6

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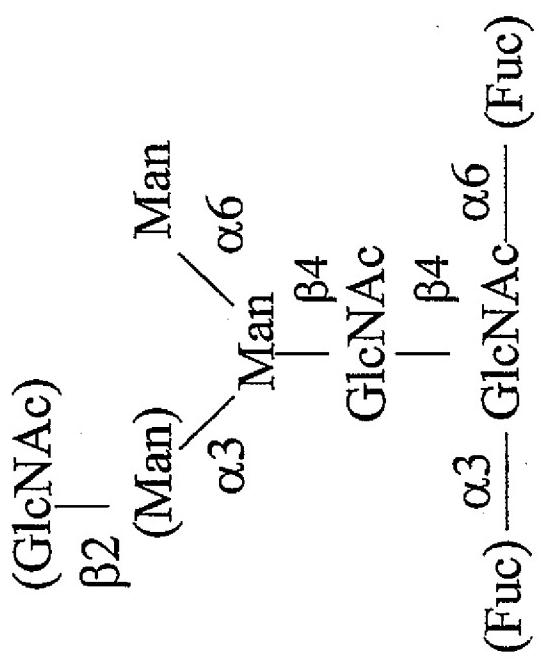
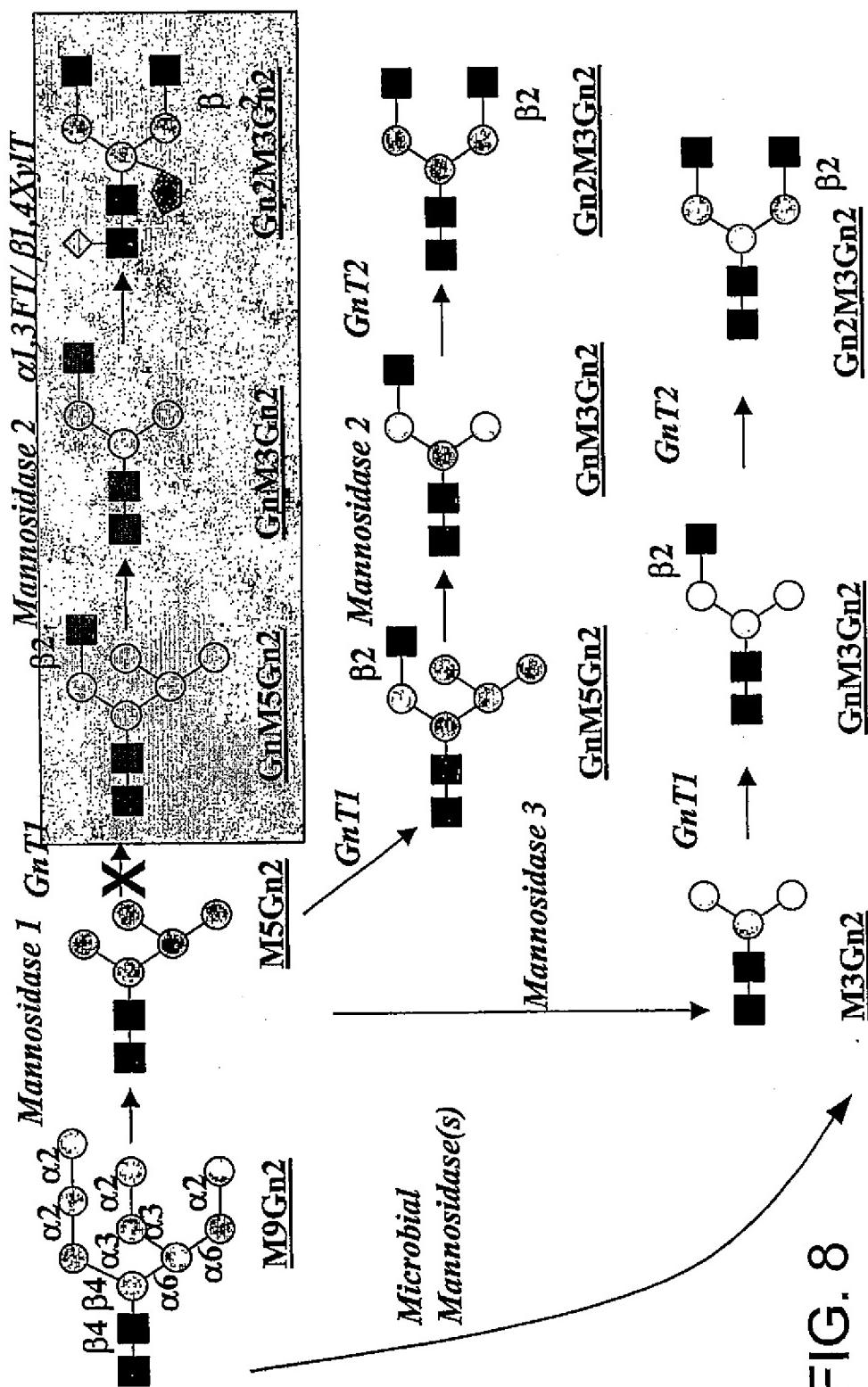


FIG. 7

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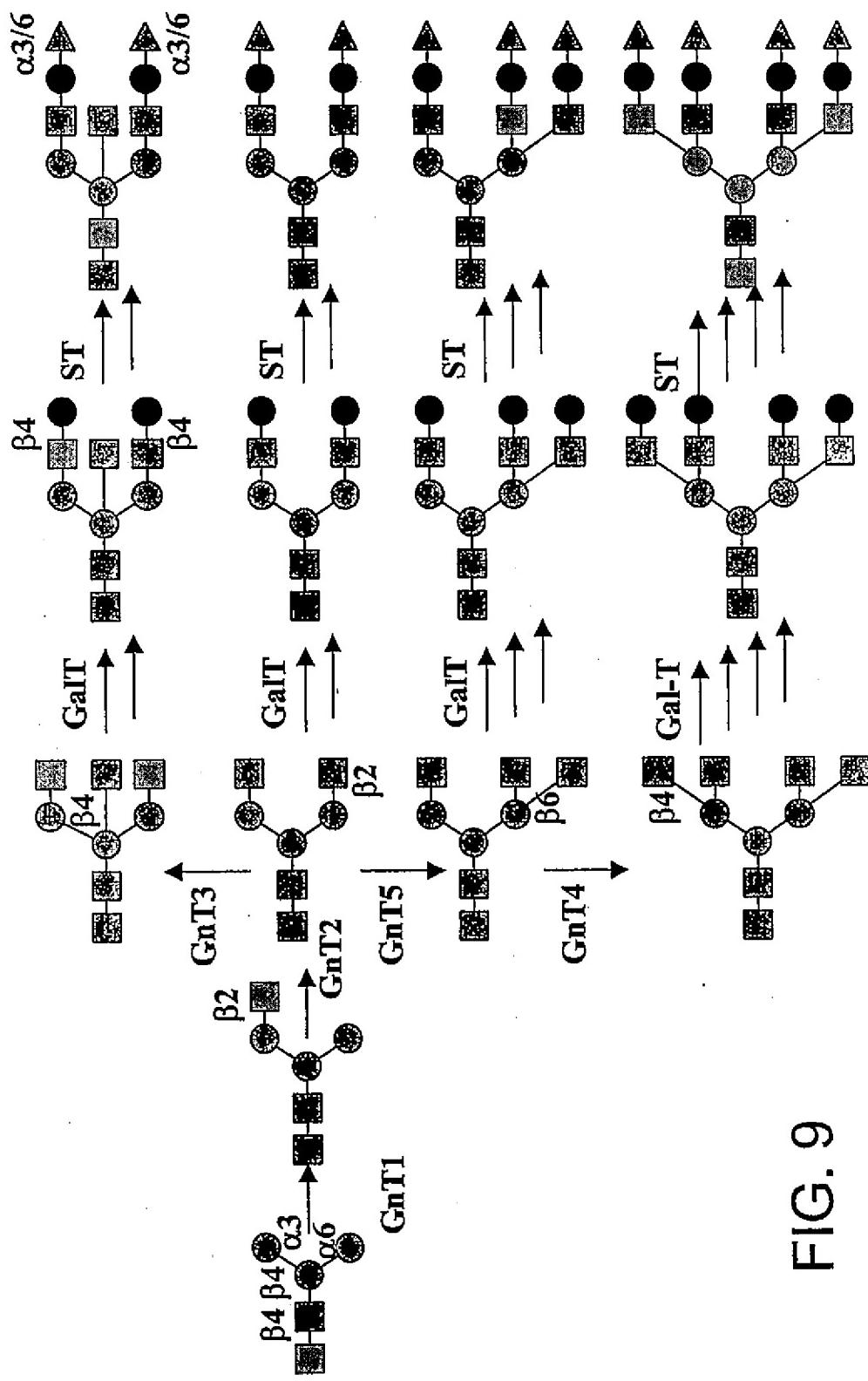


FIG. 9

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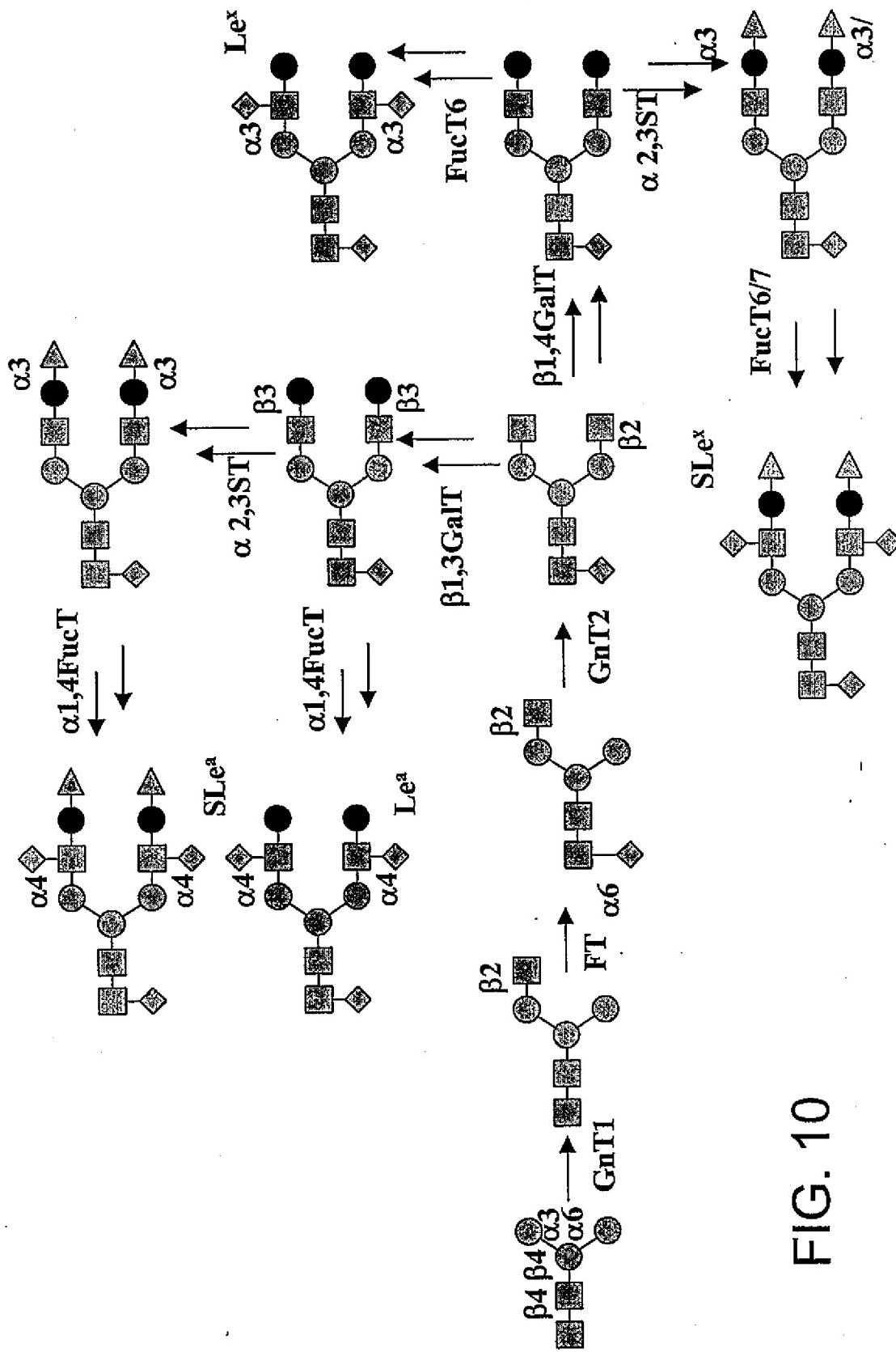


FIG. 10

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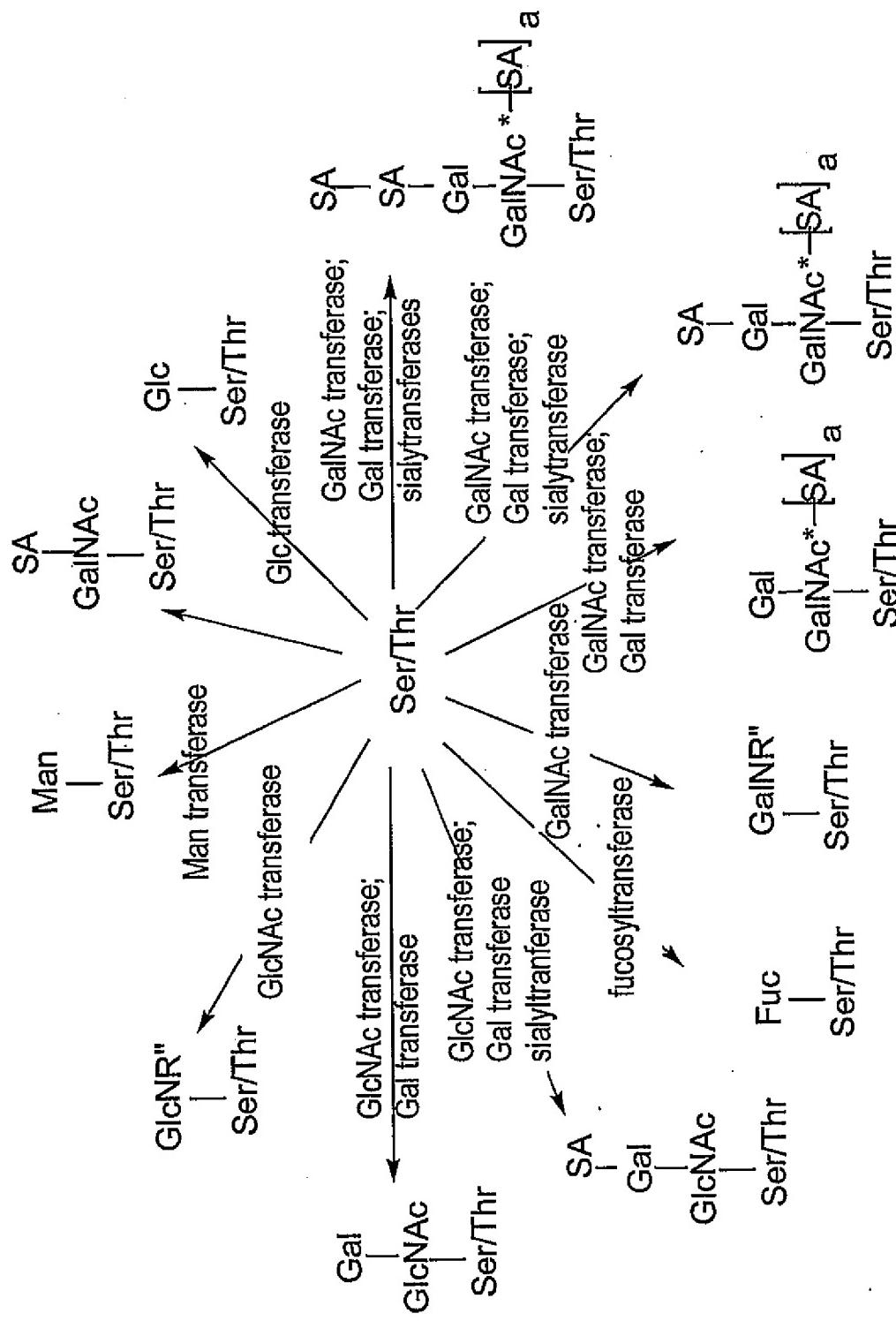


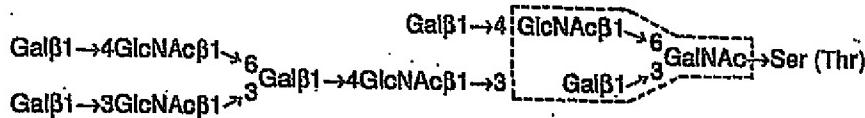
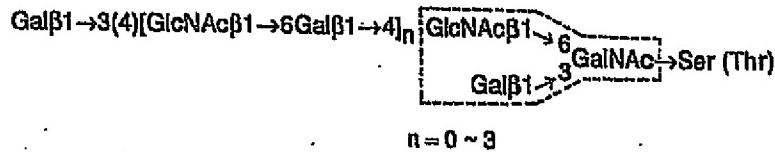
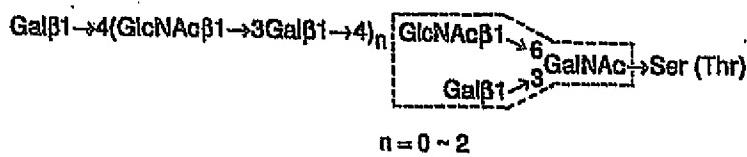
FIG. 11

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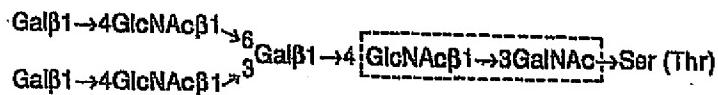
Core 1



Core 2



Core 3

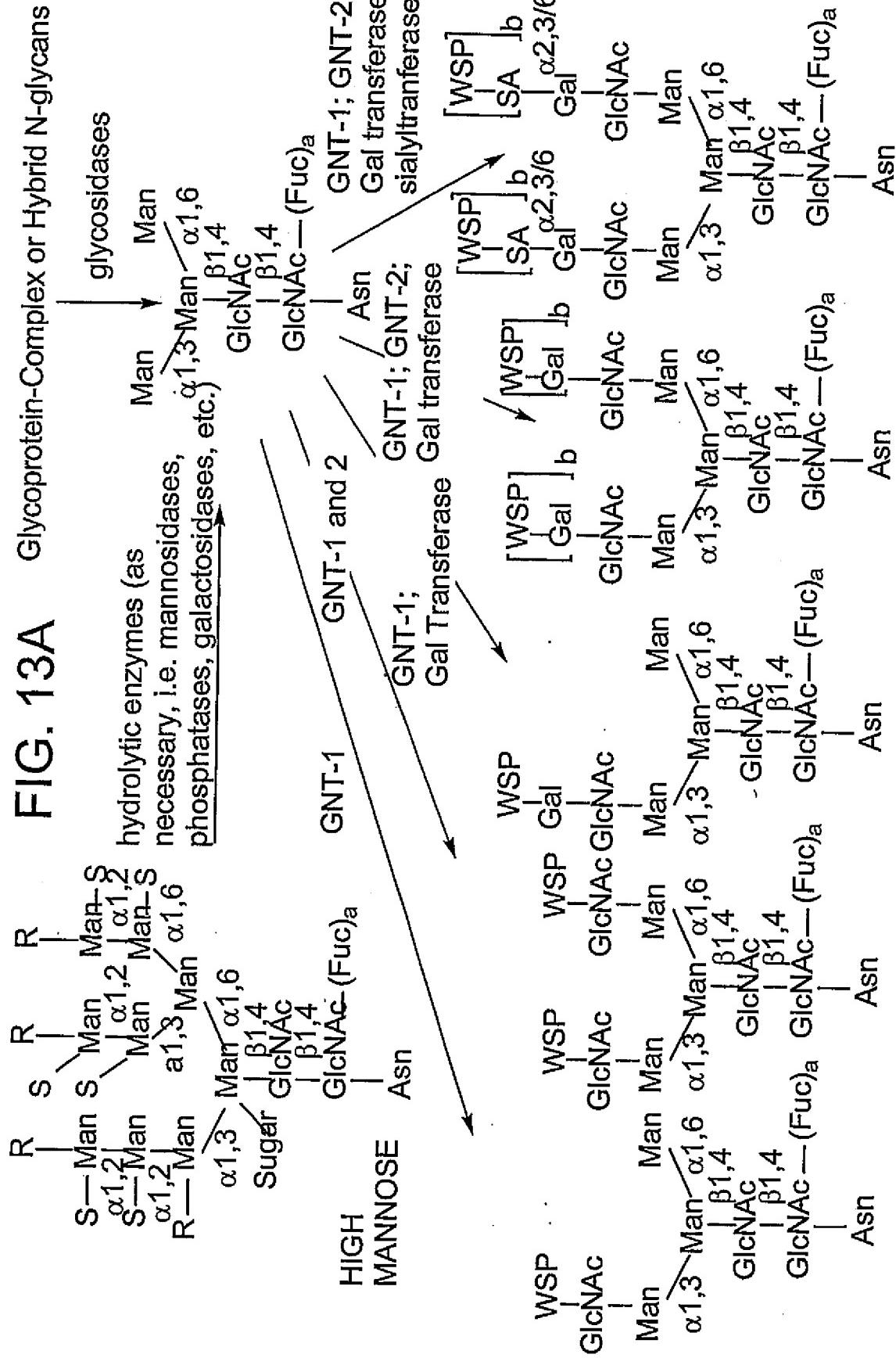


Core 4

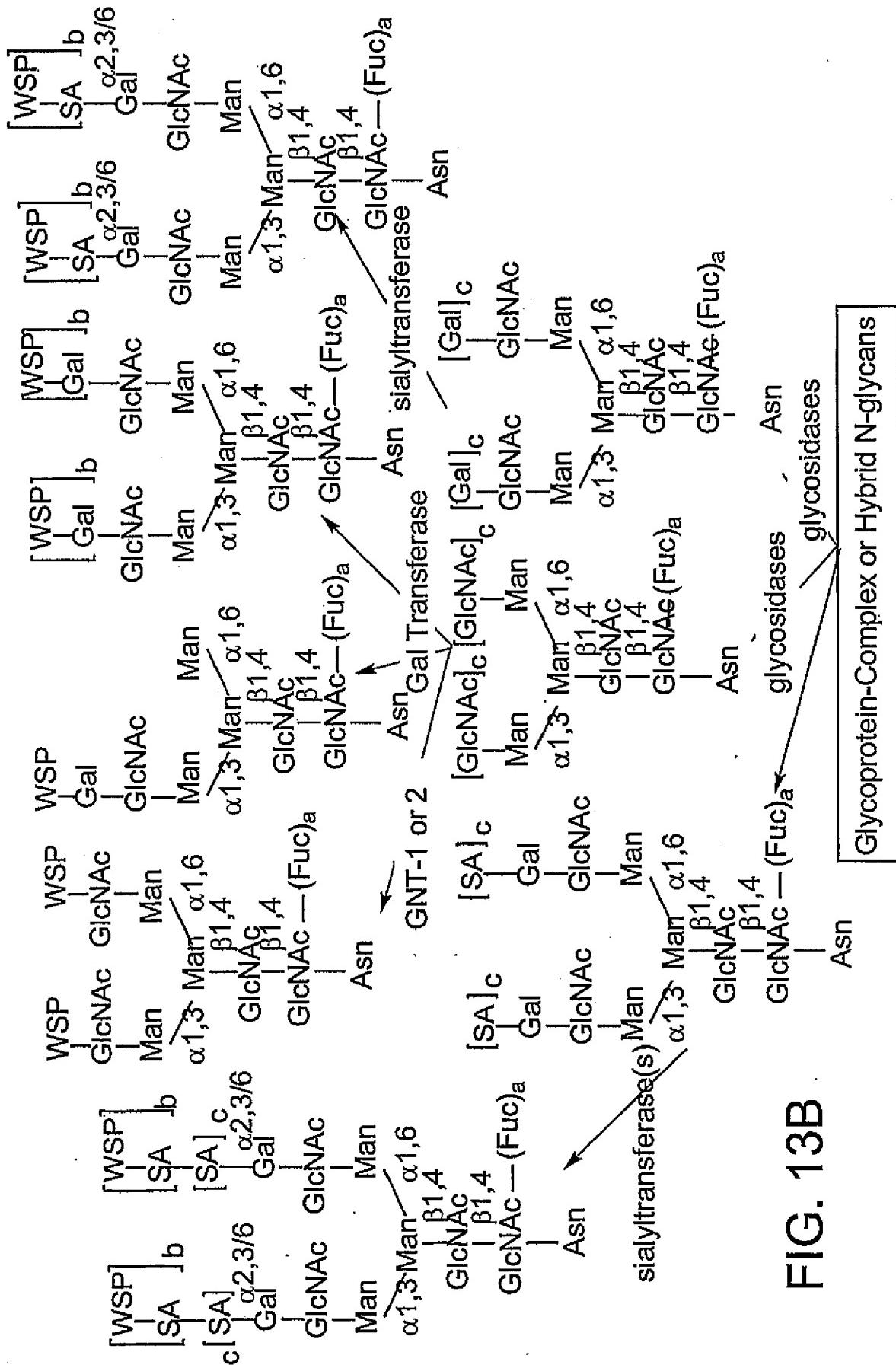


FIG. 12

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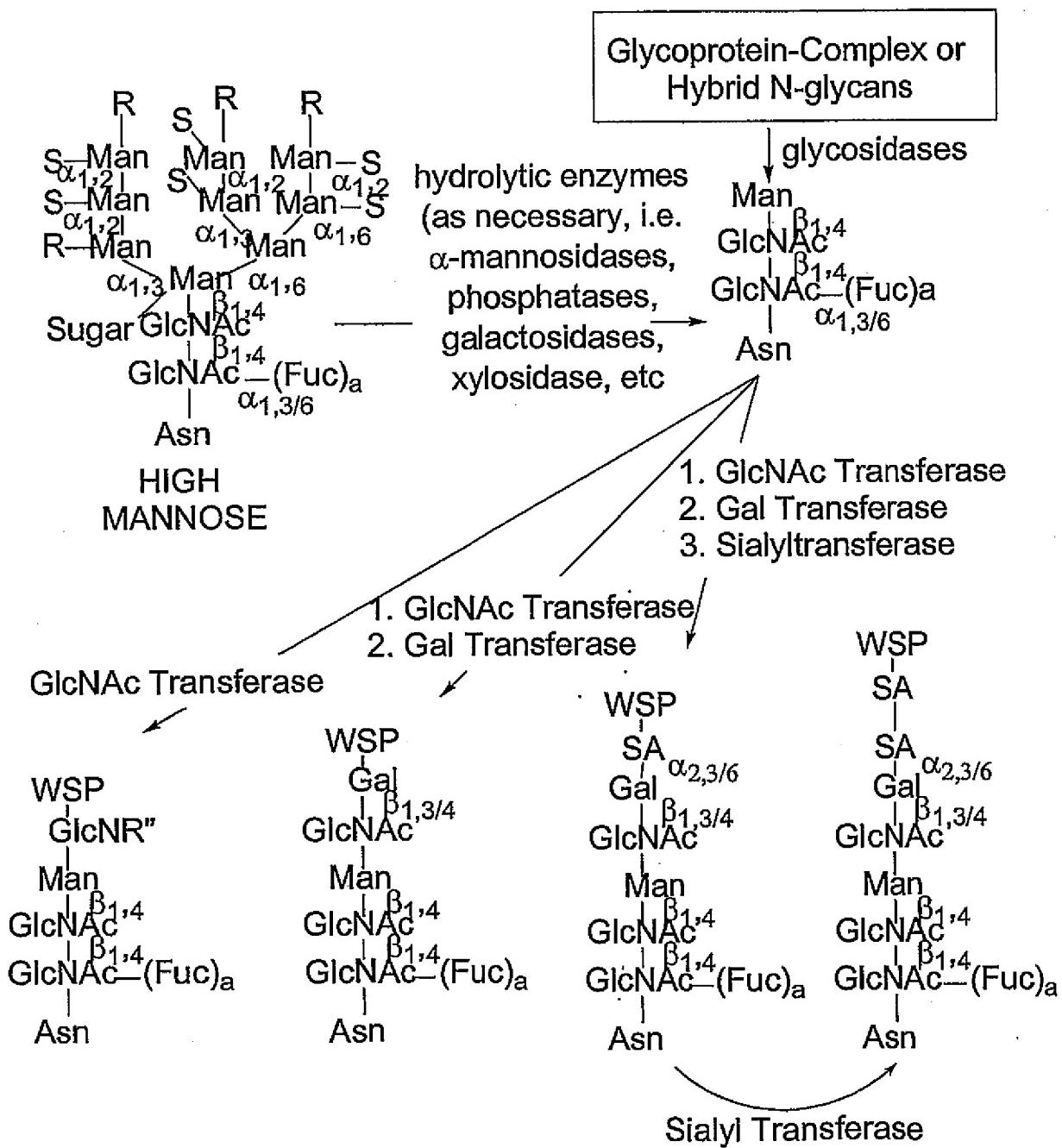


FIG. 14

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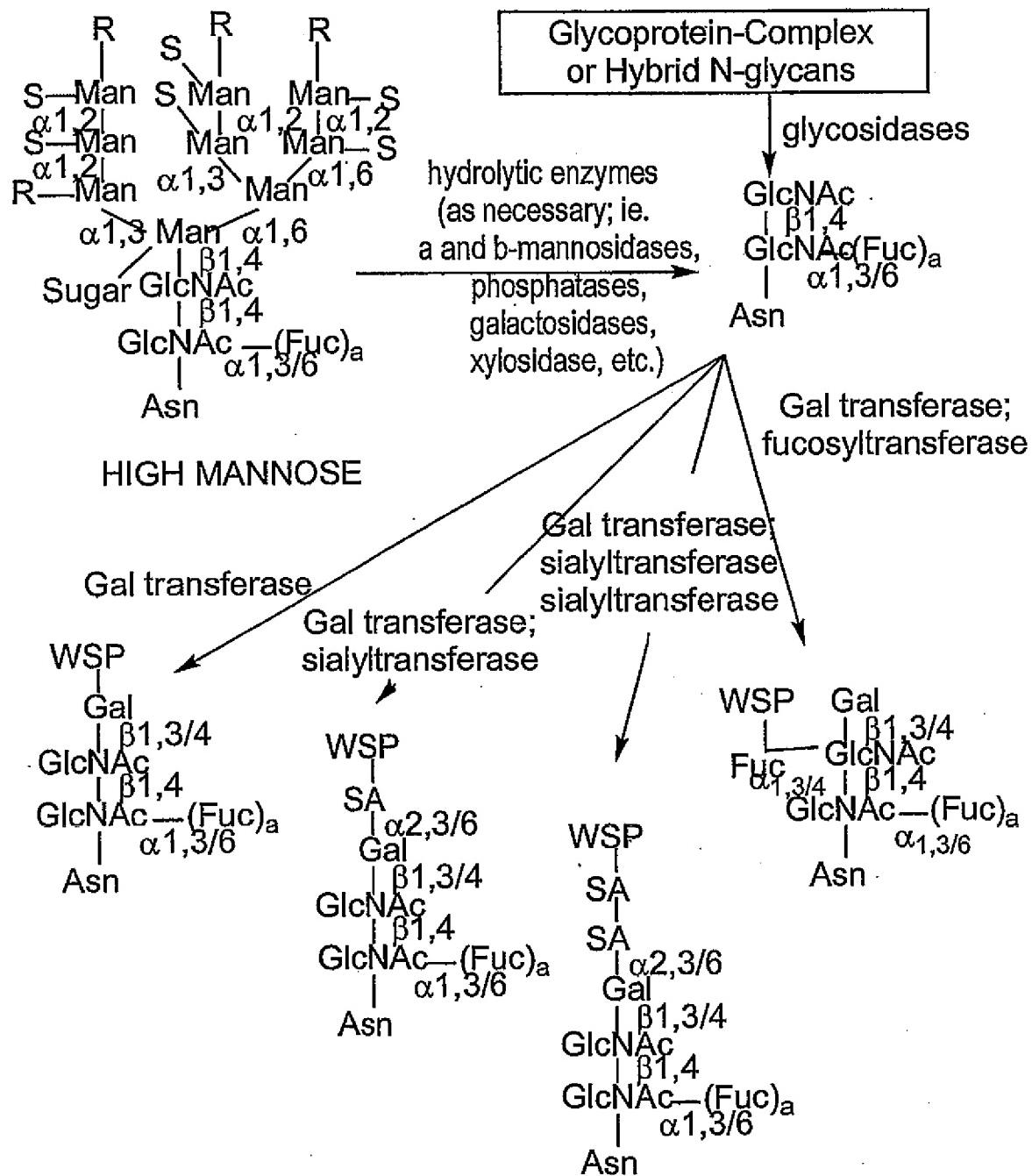


FIG. 15

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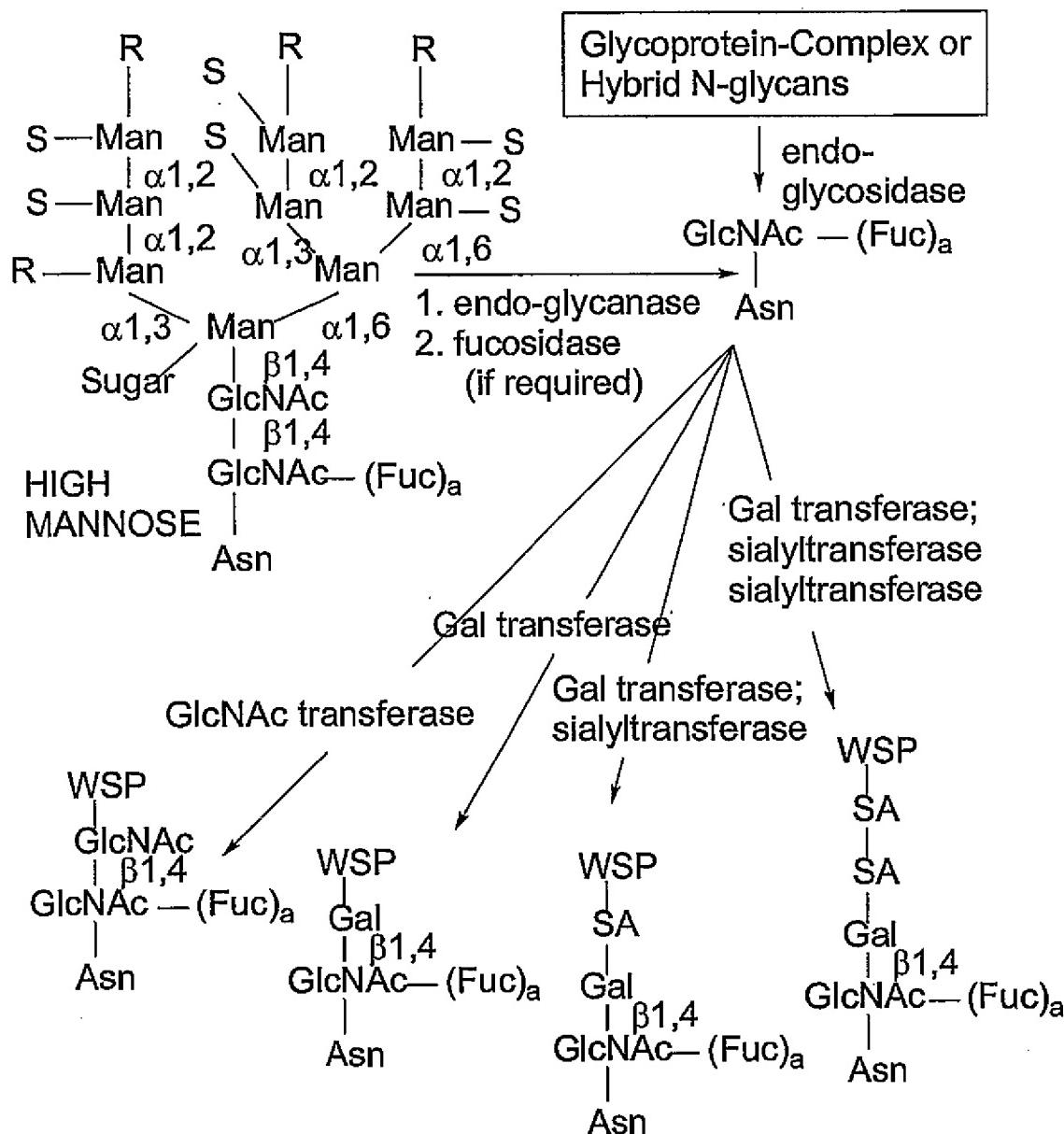


FIG. 16

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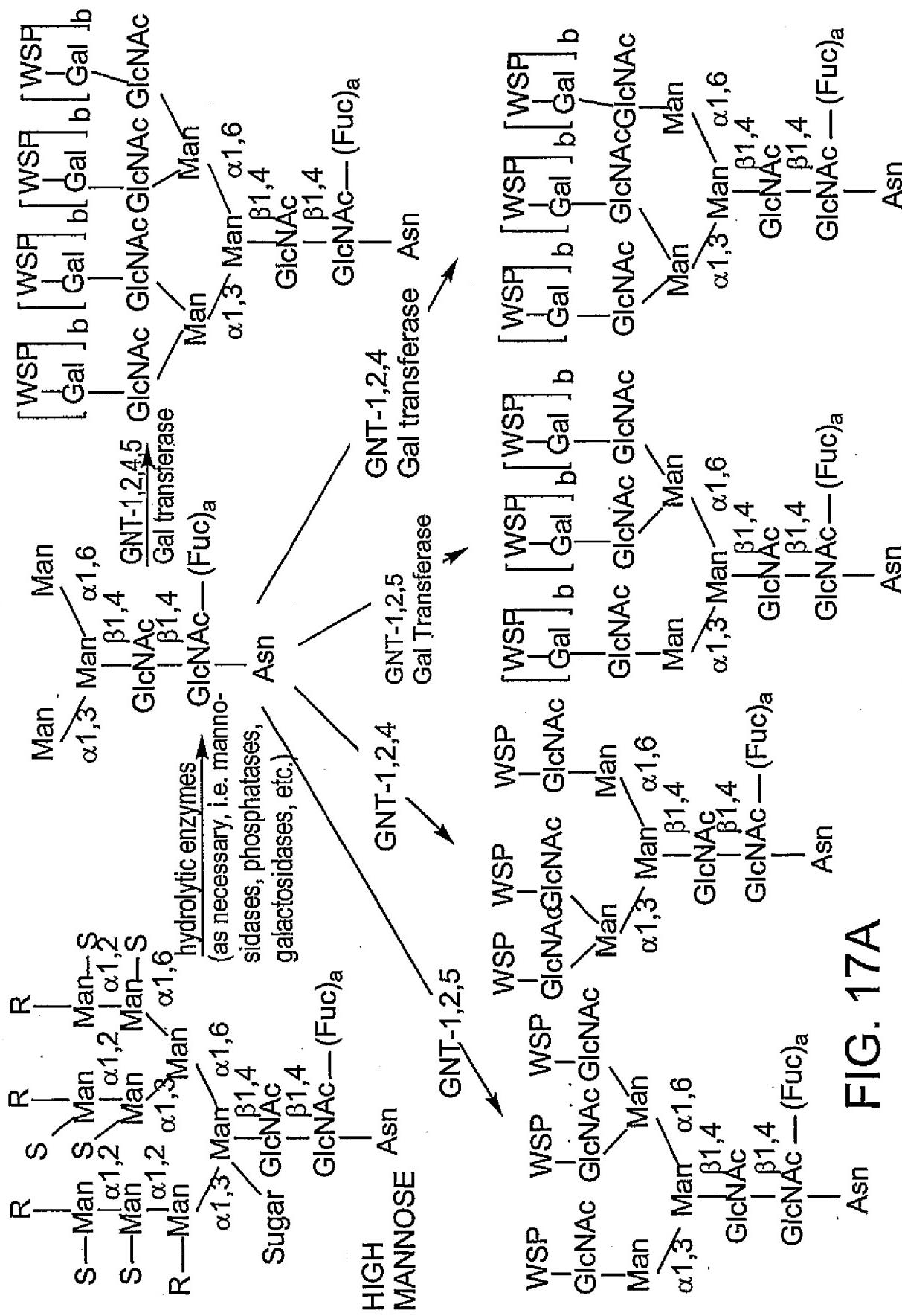


FIG. 17A

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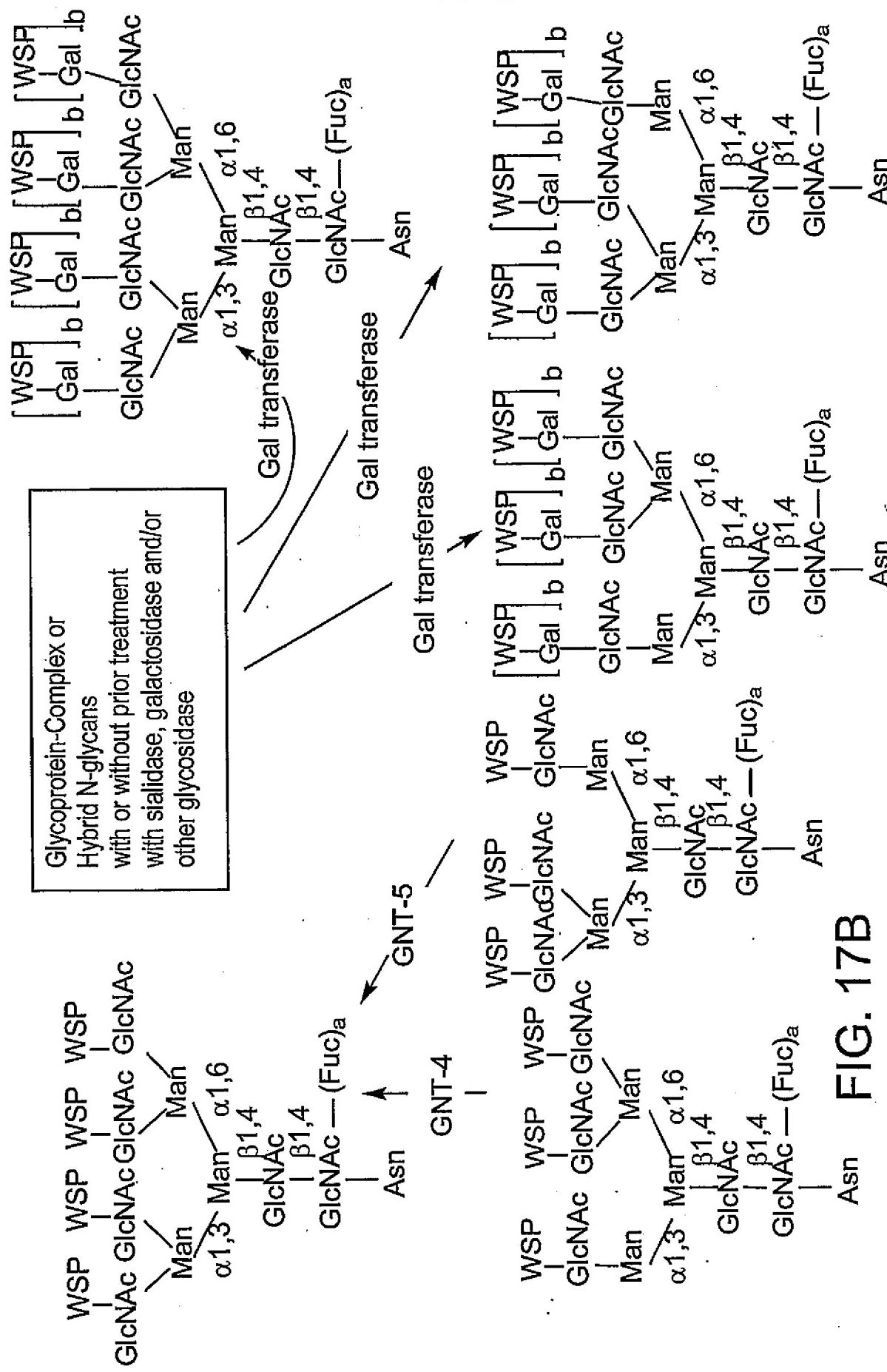
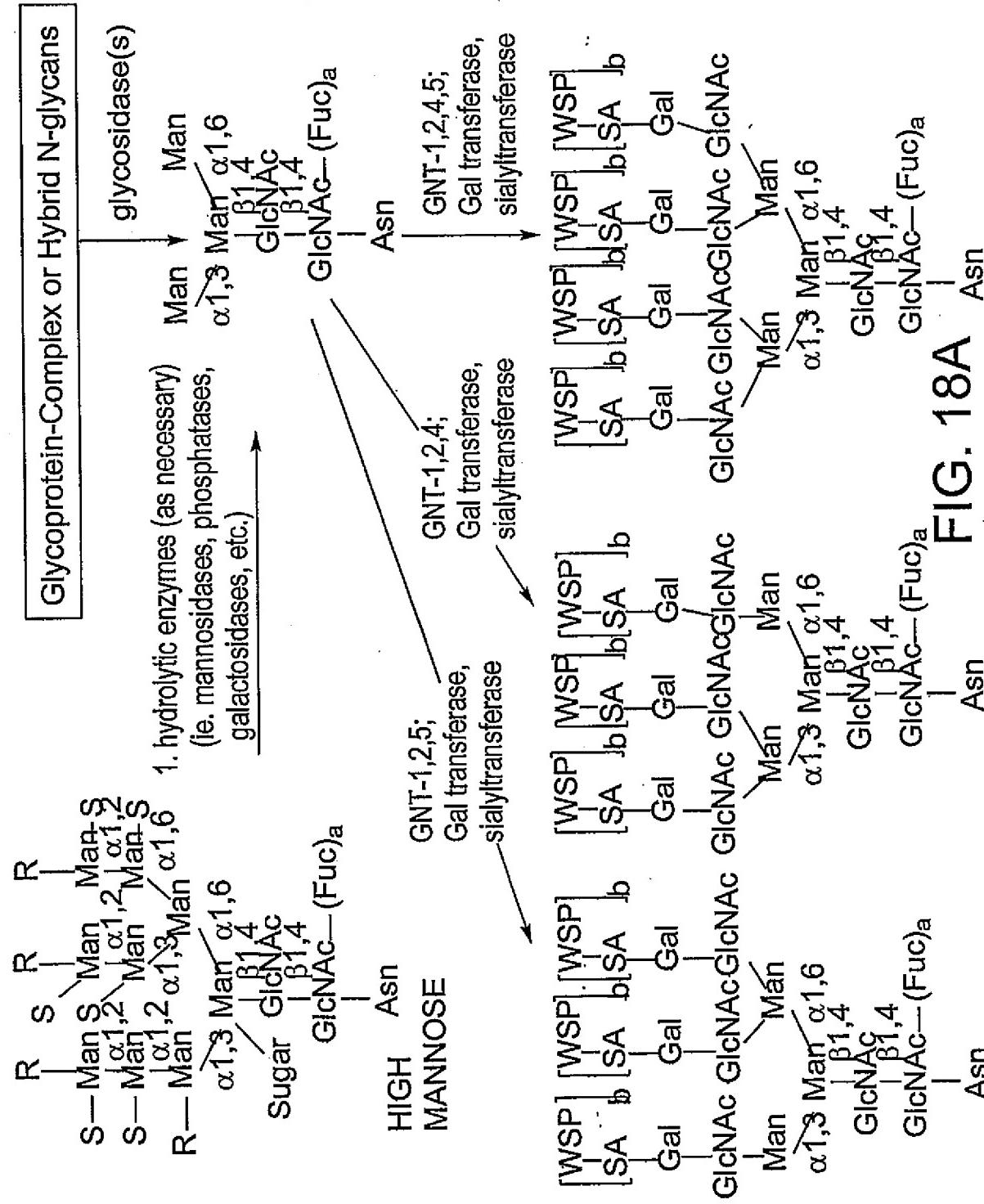
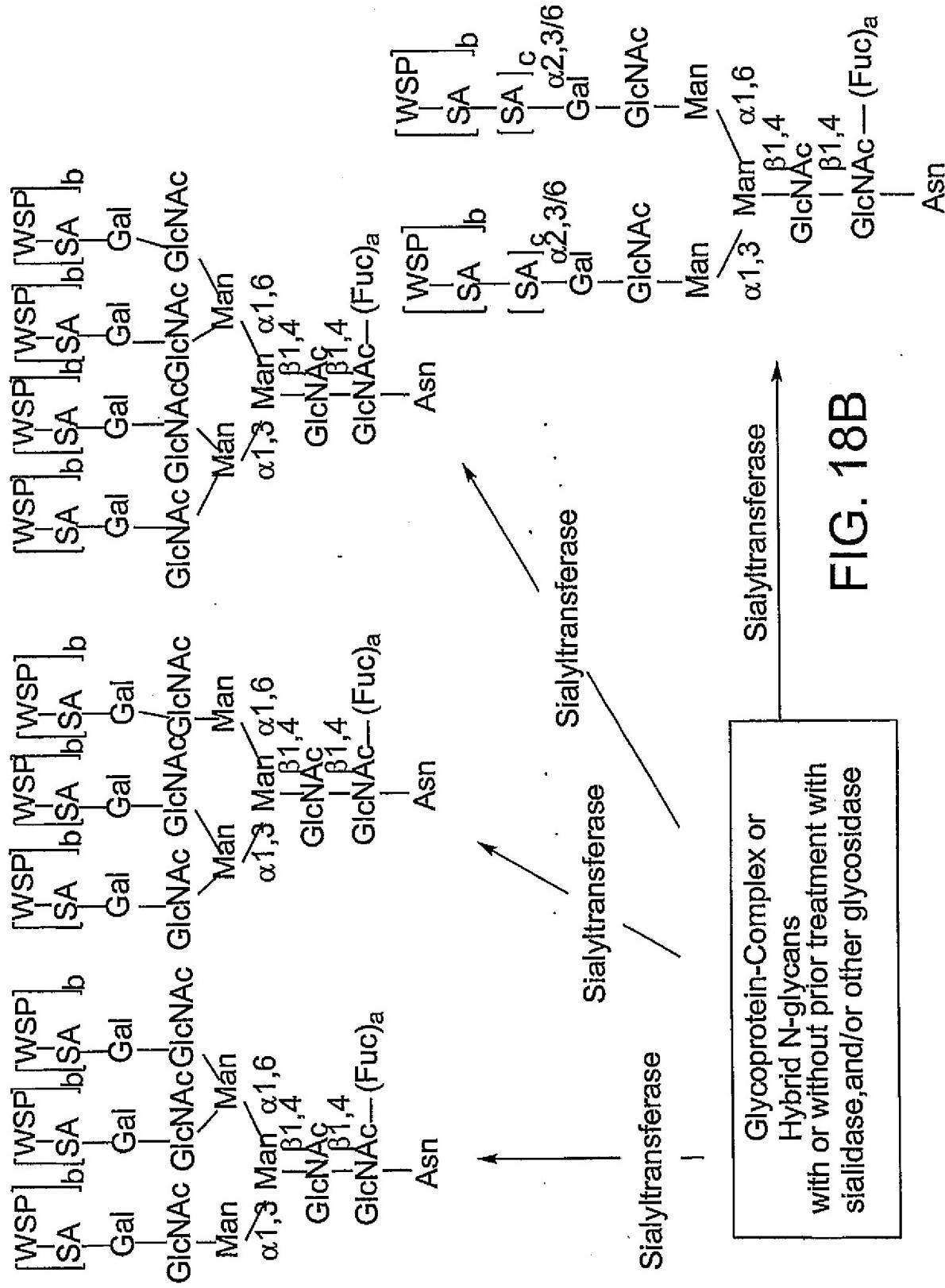


FIG. 17B

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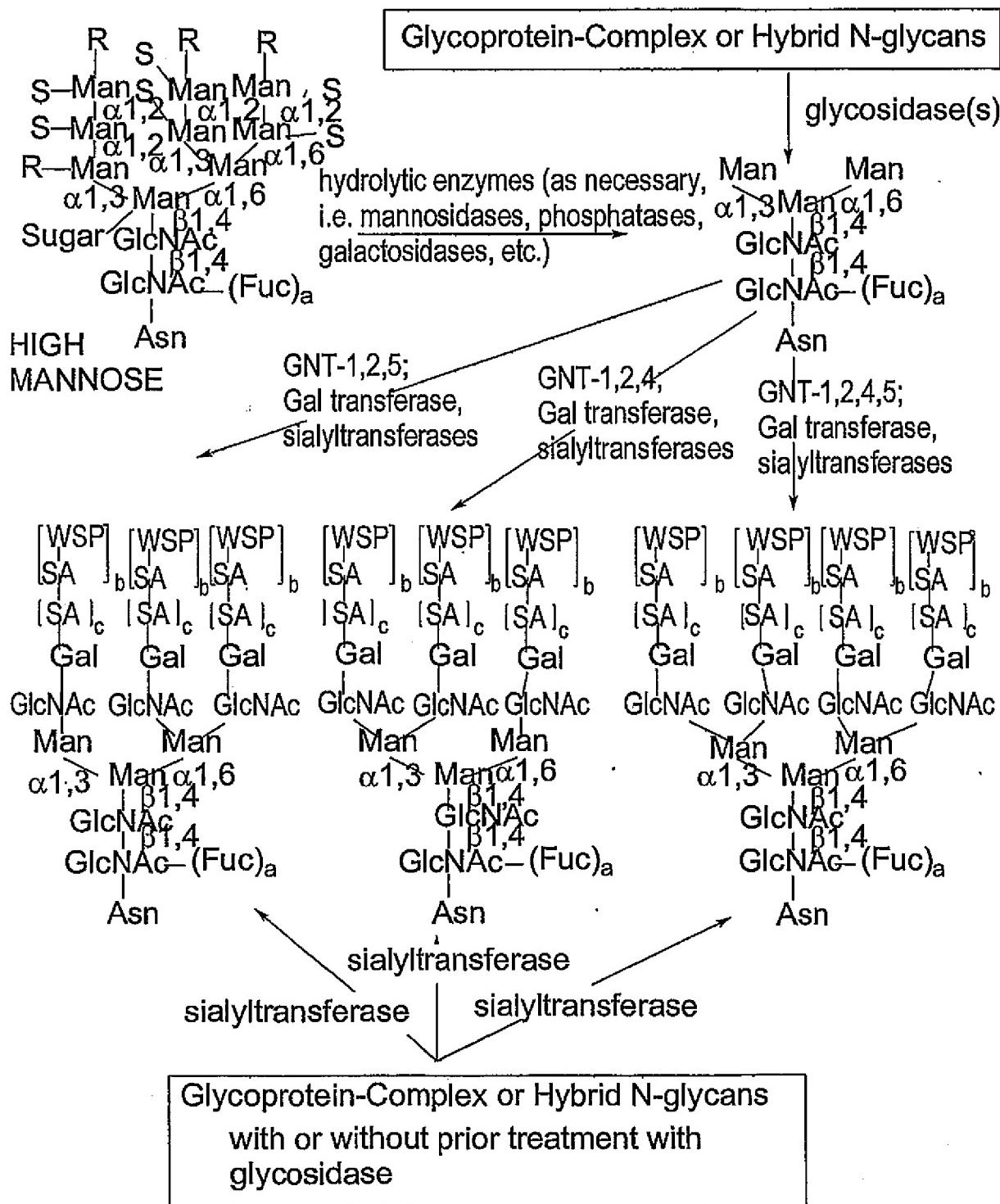
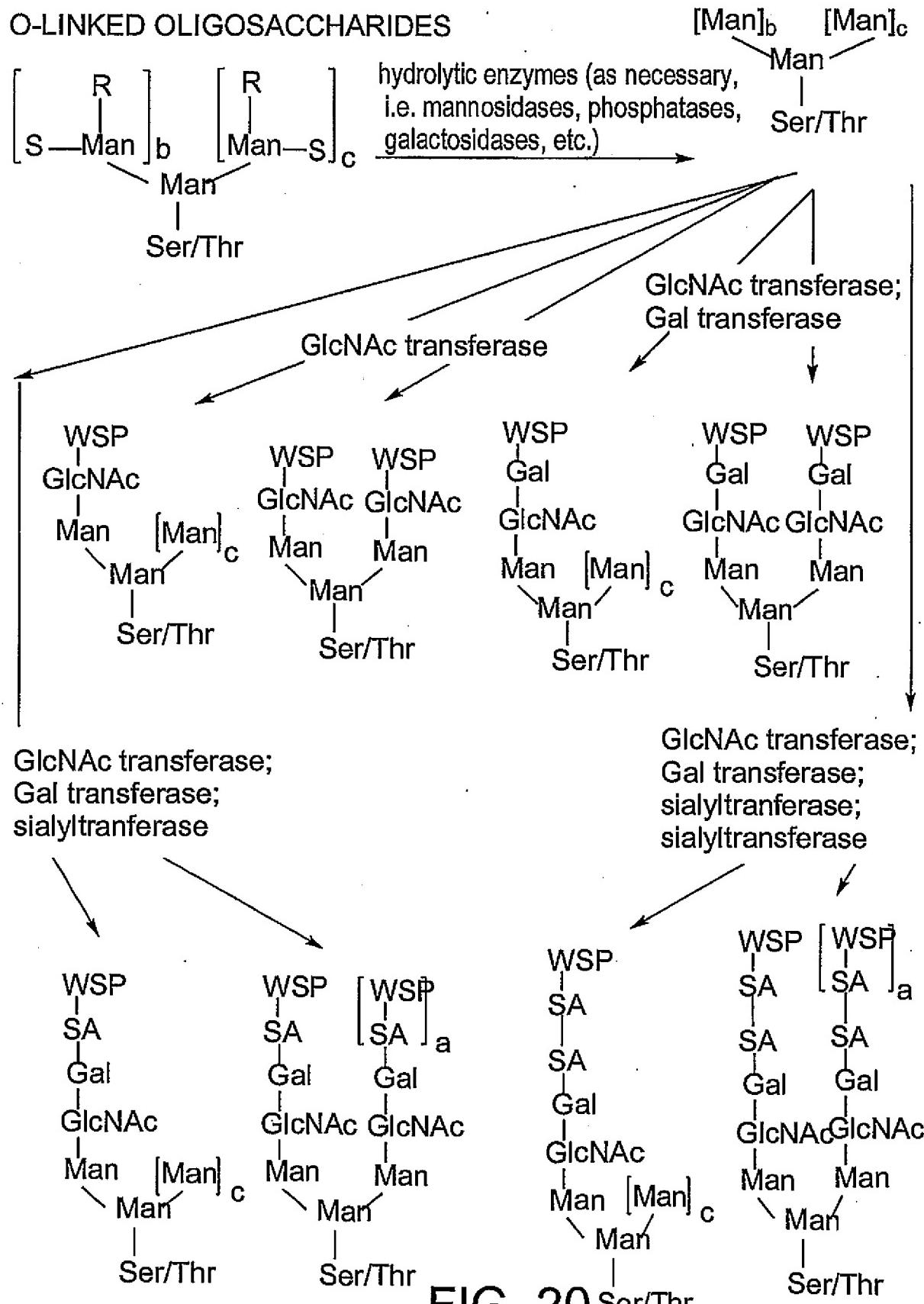


FIG. 19

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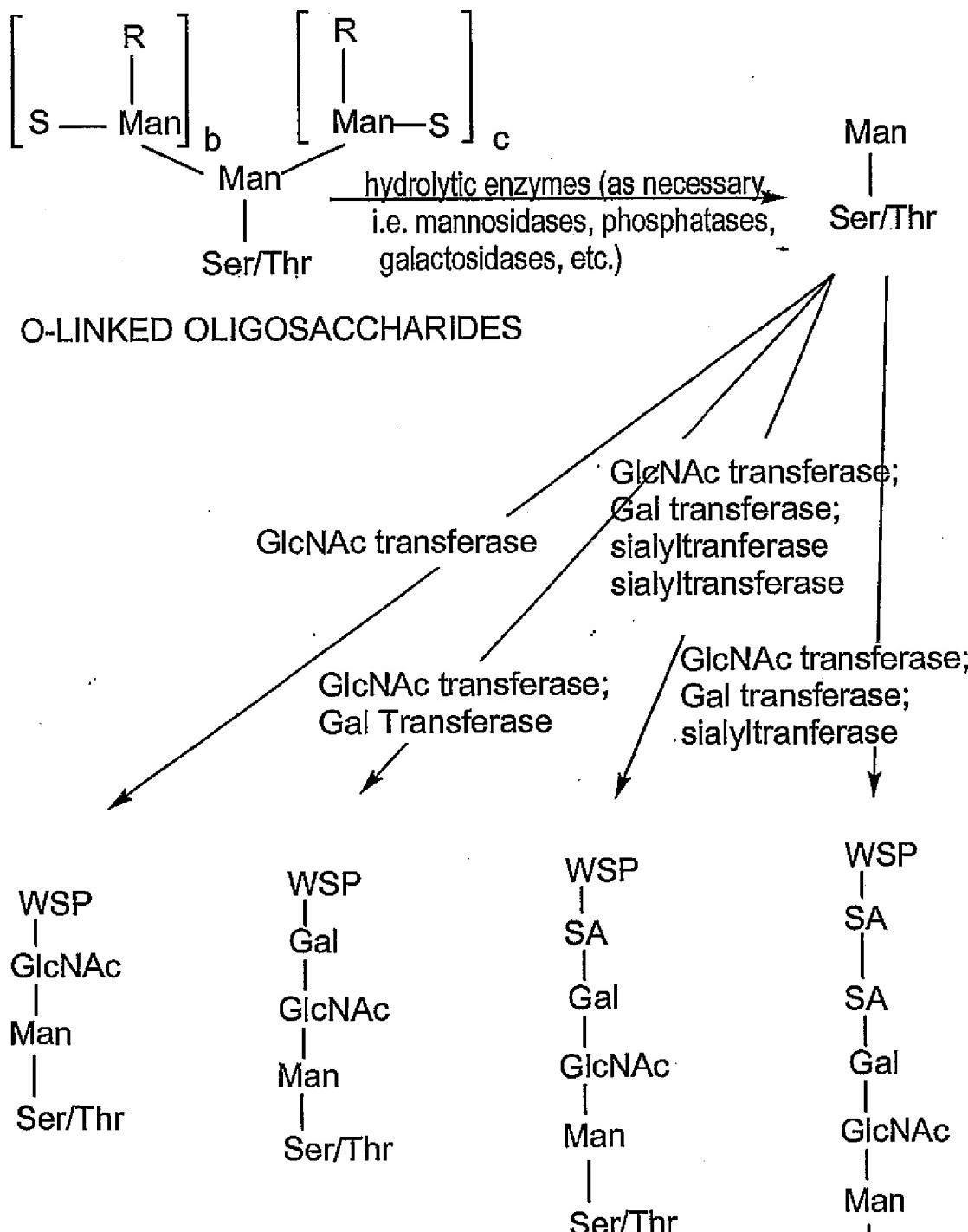


FIG. 21

53/345

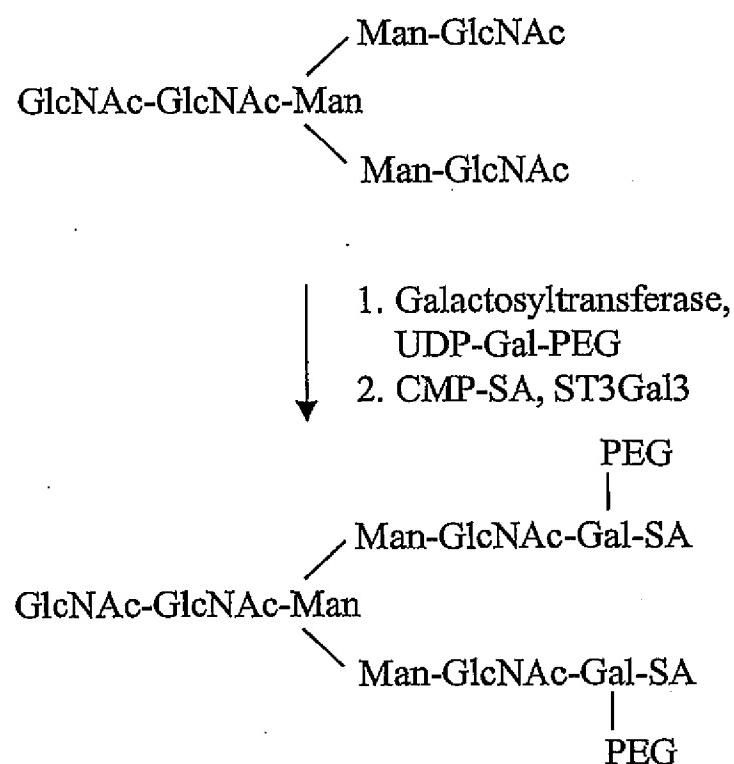


FIG. 22A

54/345

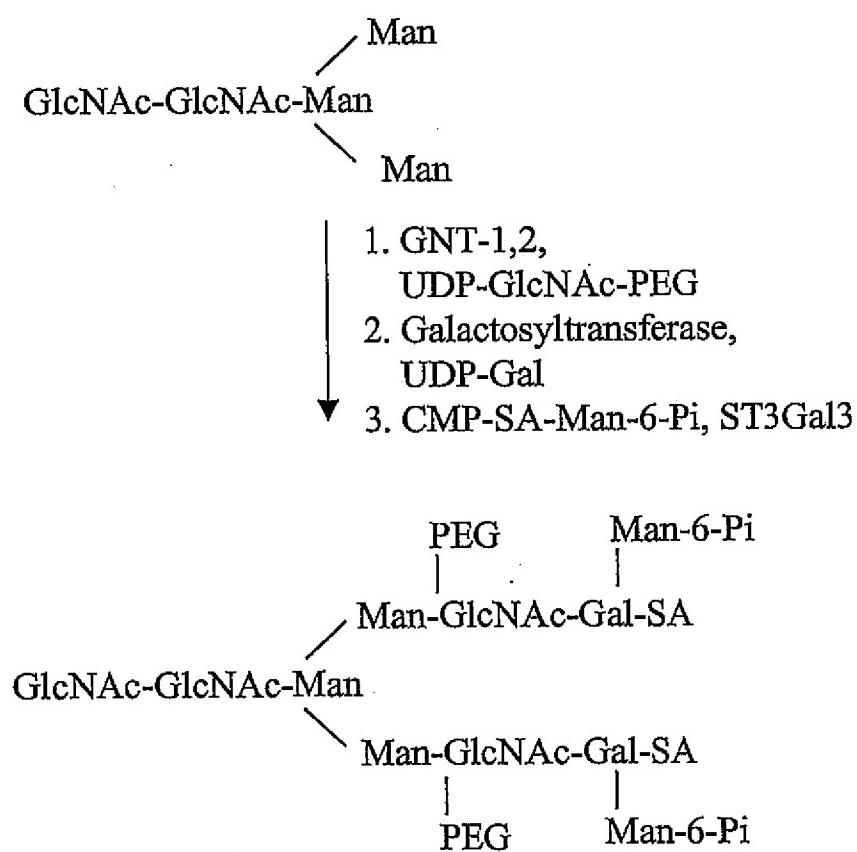


FIG. 22B

55/345

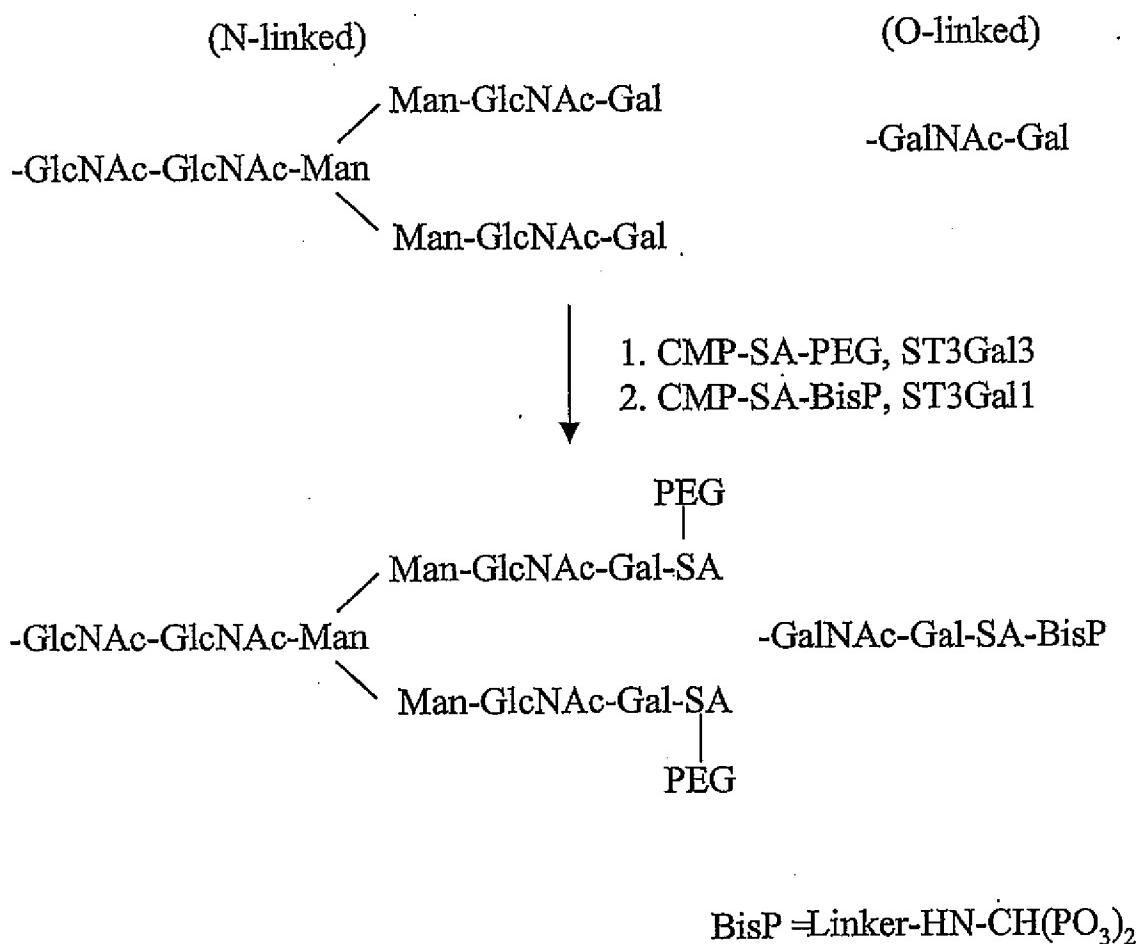


FIG. 22C

56/345

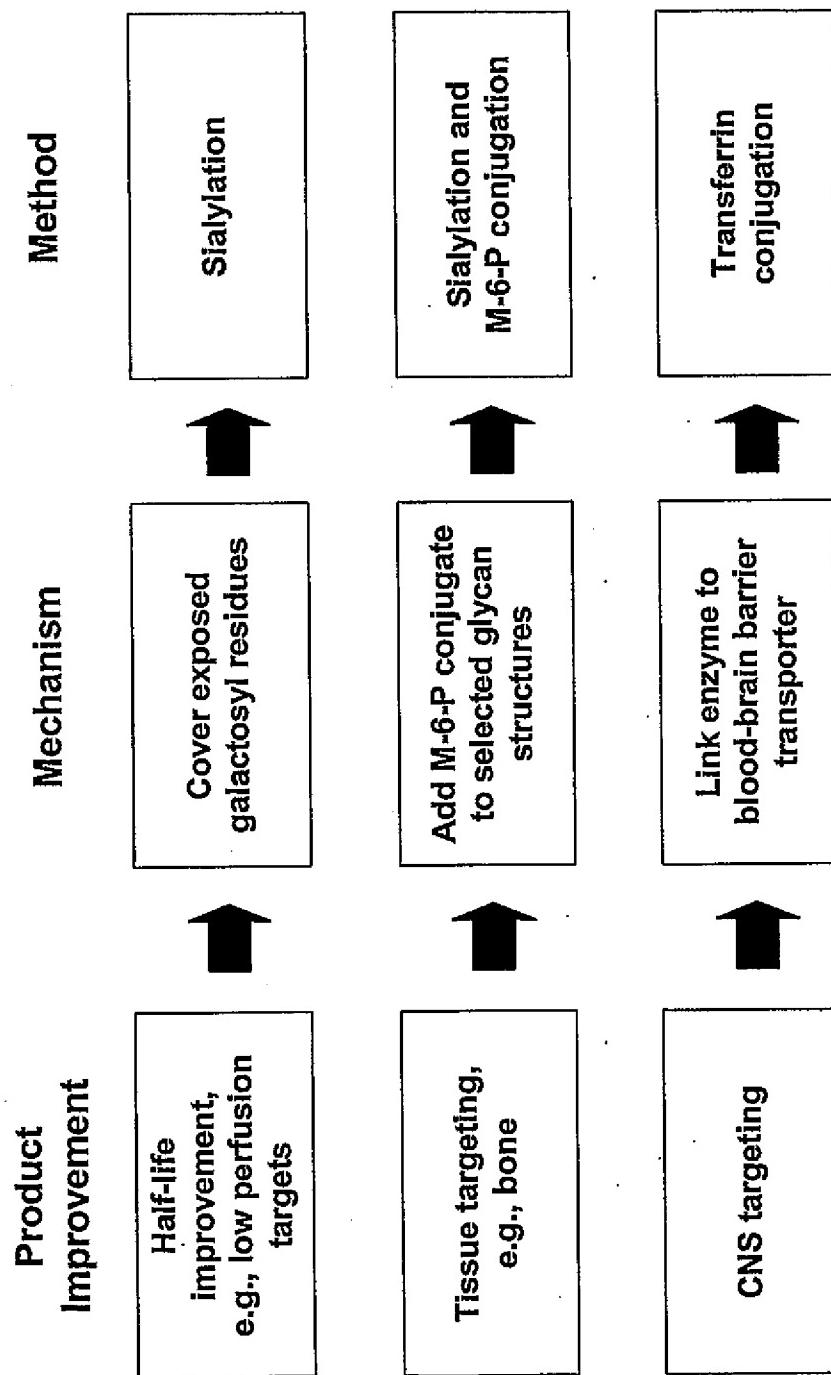


FIG. 23

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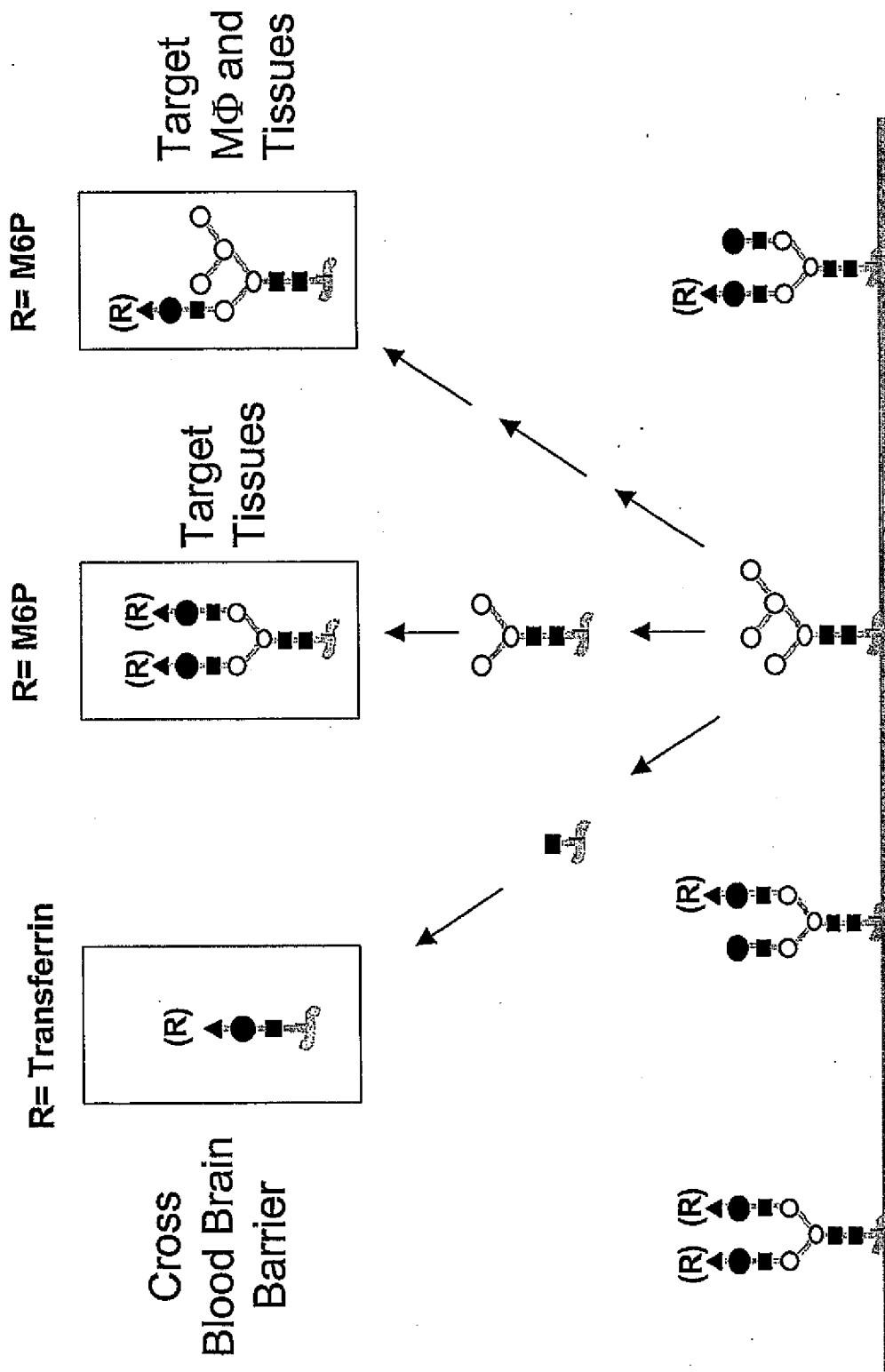


FIG. 24

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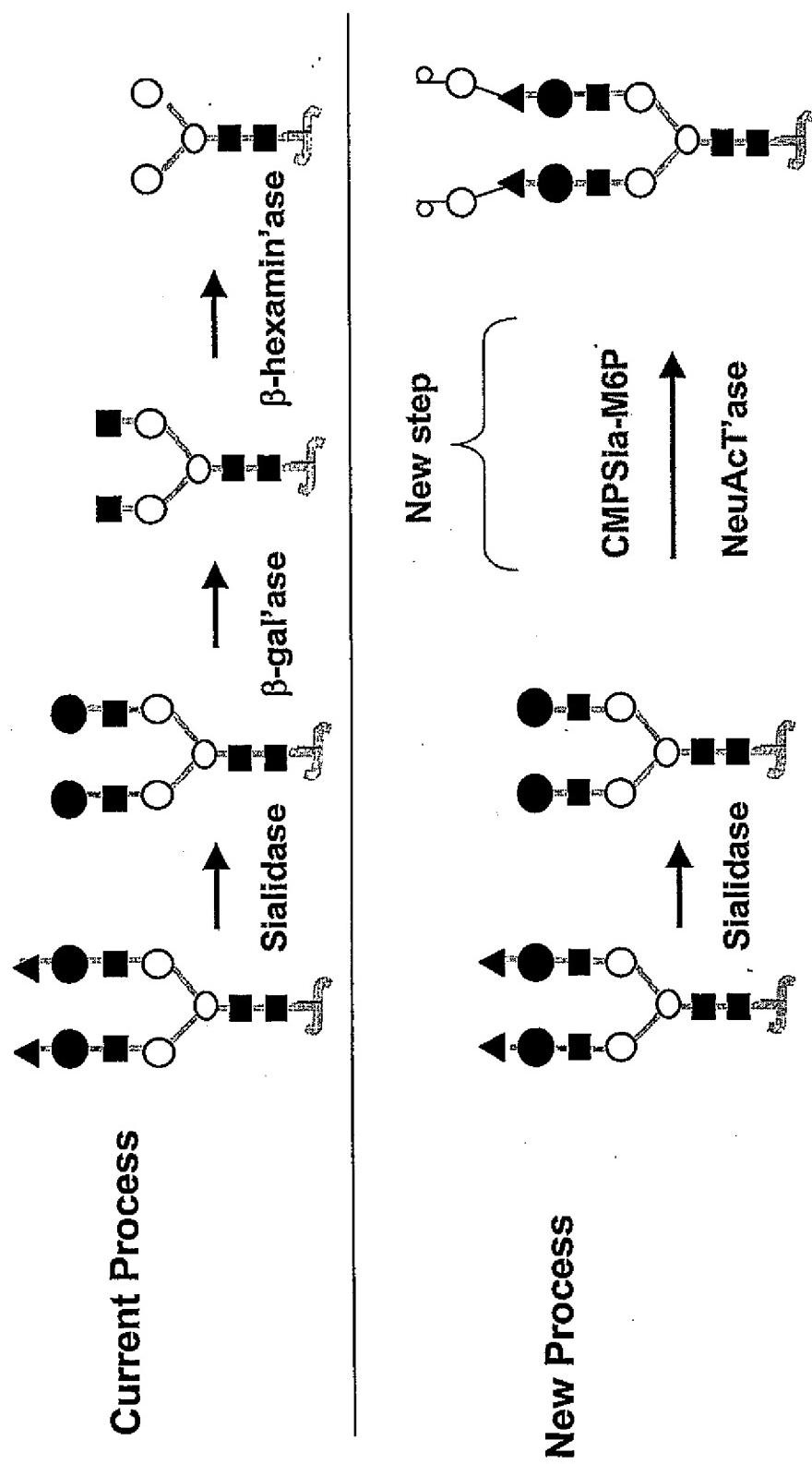


FIG. 25

59/345

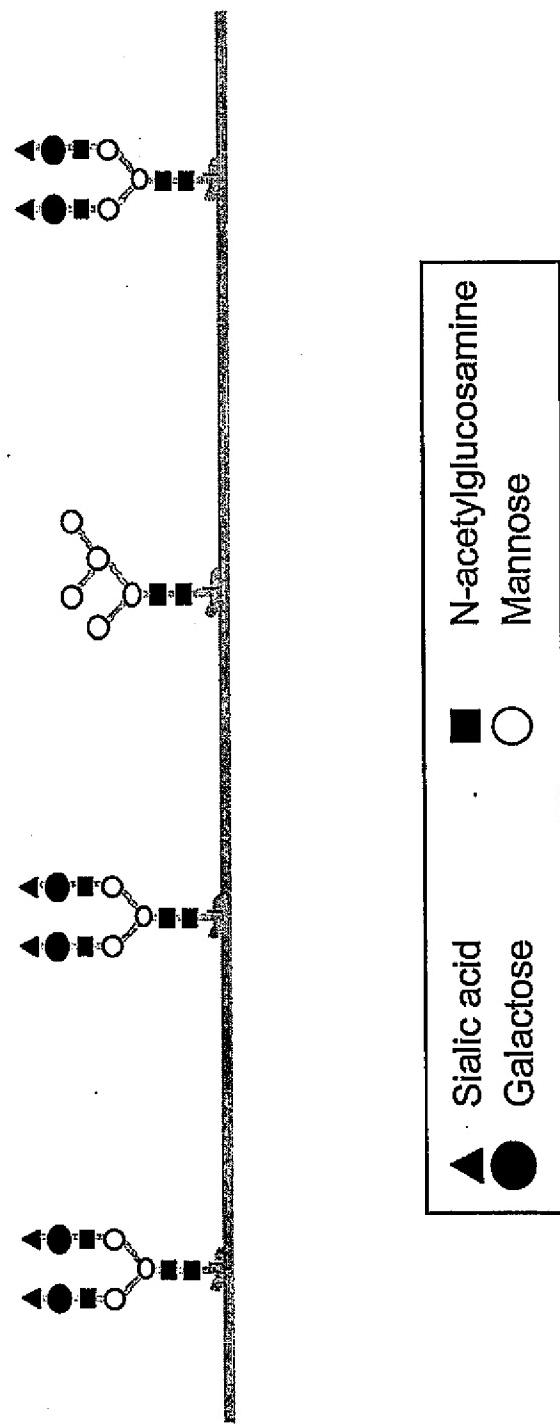
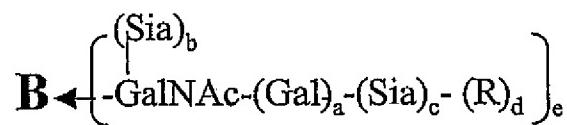
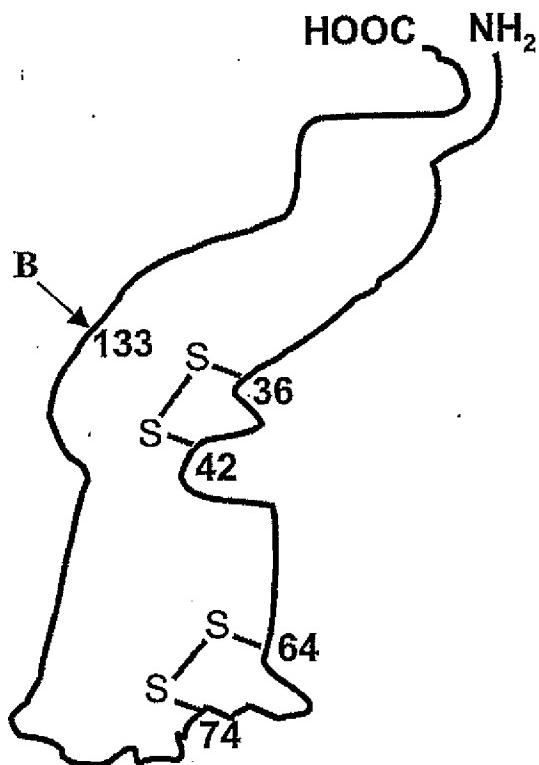


FIG. 26

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a-c, e (independently selected) = 0 or 1;

d = 0;

R = modifying group, mannose, oligo-mannose

FIG. 27A

61/345

CHO, BHK, 293 cells, Vero expressed G-CSF
a-c, e (independently selected) = 0 or 1; d = 0

- ↓
1. Sialidase
2. CMP-SA-PEG, ST3Gal1

a-d, e (independently selected) = 0 or 1;
R = PEG.

FIG. 27B

Insect cell expressed G-CSF
a, e (independently selected) = 0 or 1;
b, c, d = 0.

- ↓
1. Galactosyltransferase, UDP-Gal
2. CMP-SA-PEG, ST3Gal1

a, c, d, e (independently selected) = 0 or 1; R =
PEG.

FIG. 27C

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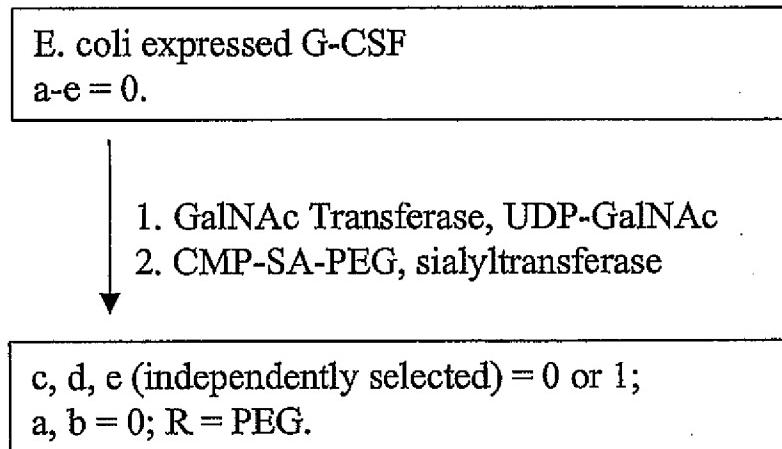


FIG. 27D

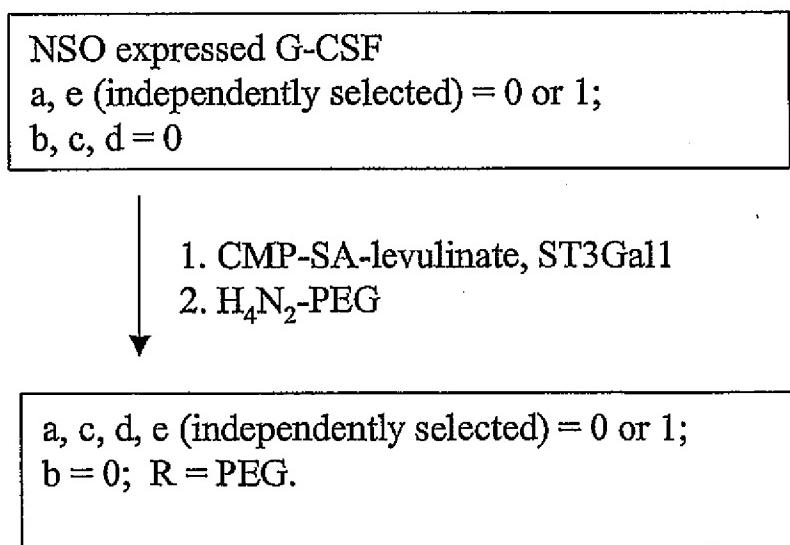


FIG. 27E

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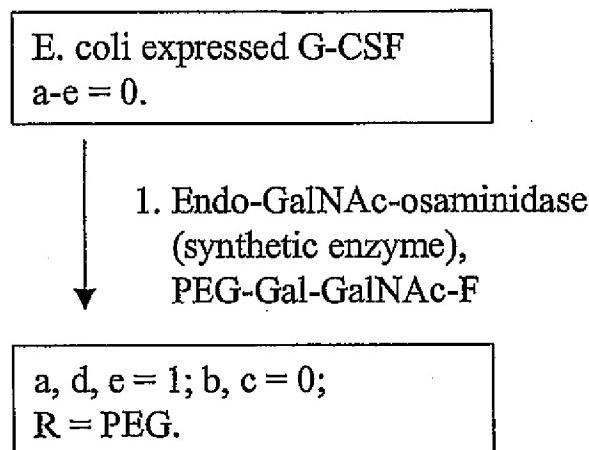


FIG. 27F

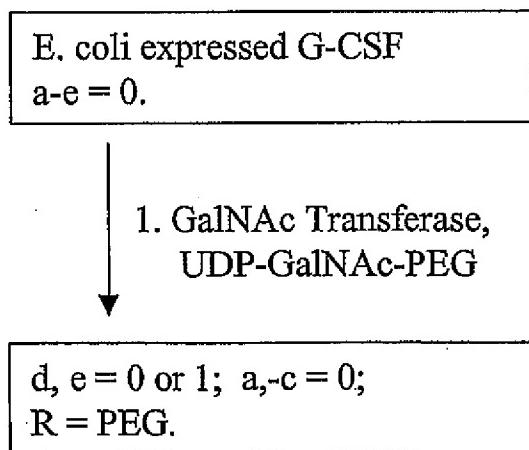
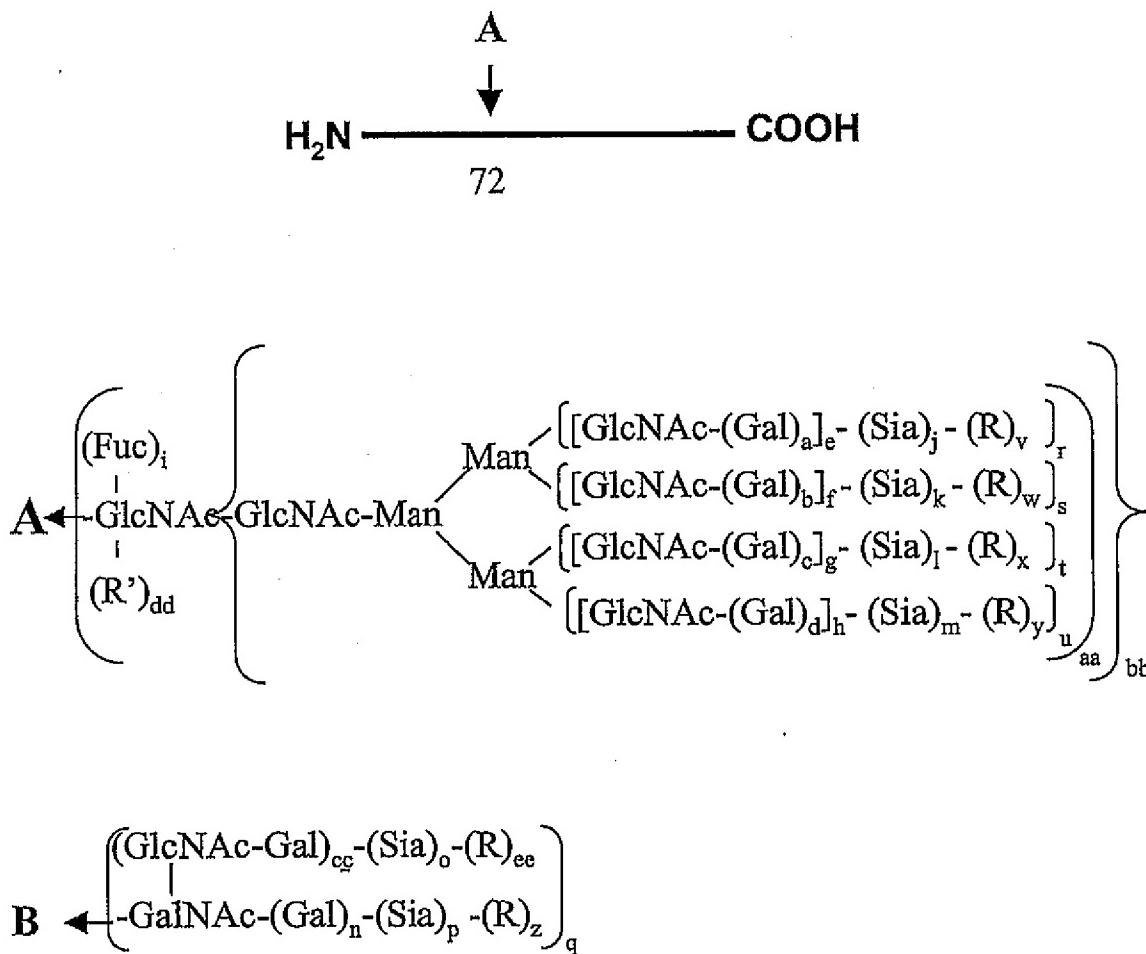


FIG. 27G

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a-d, i, n-u (independently selected) = 0 or 1.

aa, bb, cc, dd, ee (independently selected) = 0 or 1.

e-h (independently selected) = 0 to 6.

j-m (independently selected) = 0 to 20.

v-z = 0; R = modifying group, mannose, oligo-mannose.

R' = H, glycosyl residue, modifying group,
glycoconjugate.

FIG. 28A

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CHO, BHK, 293 cells, Vero expressed
interferon alpha 14C.
a-d, aa, bb = 1; e-h = 1 to 4;
cc, j-m, i, r-u (independently selected) = 0 or 1;
q, n-p, v-z, cc, dd, ee = 0.

- ↓
1. Sialidase
2. CMP-SA-PEG, ST3Gal3

a-d, aa, bb = 1; e-h = 1 to 4;
bb, cc, i, r-u (independently selected) = 0 or 1;
q, n-p, v-z, cc, dd, ee = 0;
v-y (independently selected) = 1,
when j-m (independently selected) = 1;
R = PEG.

FIG. 28B

Insect cell or fungi expressed interferon alpha-14C.
a-d, f, h, j-q, s, u, v-z, cc, dd, ee = 0;
e, g, i, r, t (independently selected) = 0 or 1;
aa, bb = 1.

- ↓
1. GNT's 1&2, UDP-GlcNAc
2. Galactosyltransferase, UDP-Gal-PEG

b, d, f, h, j-q, s, u, w, y, z, cc, dd, ee = 0;
a, c, e, g, i, r, t, v, x (independently selected) = 0 or 1;
v, x (independently selected) = 1,
when a, c, (independently selected) = 1;
aa, bb = 1; R = PEG.

FIG. 28C

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Yeast expressed interferon alpha-14C.

a-q, cc, dd, ee, v-z = 0;

r-y (independently selected) = 0 to 1;

aa, bb = 1;

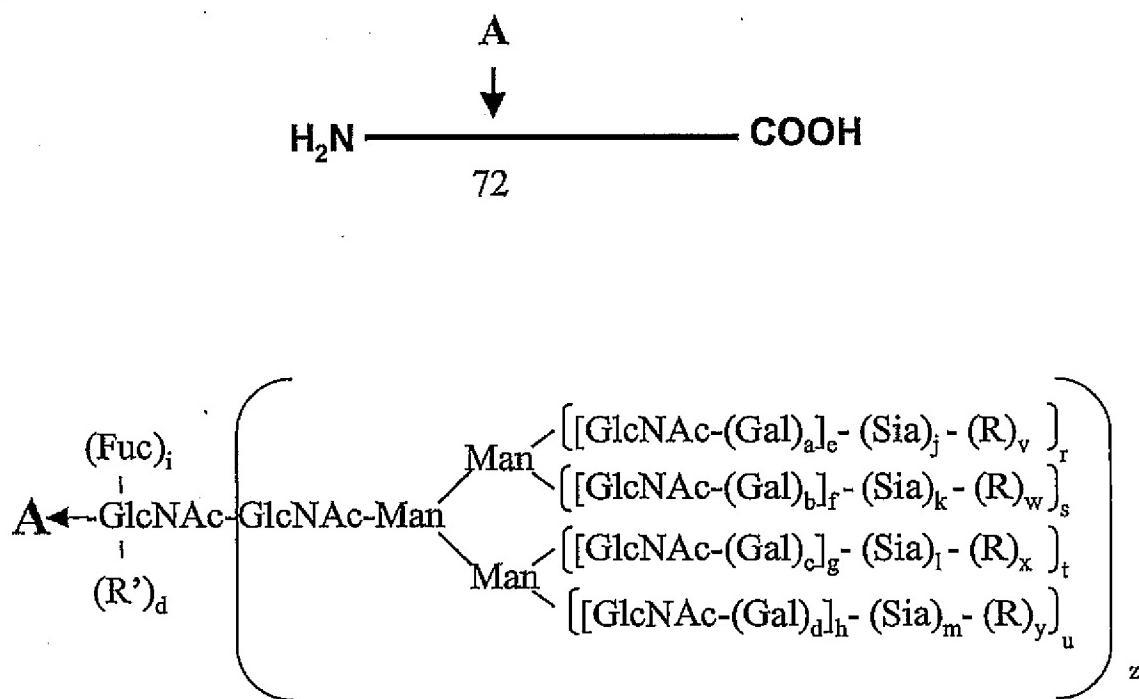
R (branched or linear) = Man, oligomannose or
polysaccharide.

- ↓
1. Endo-H
 2. Galactosyltransferase, UDP-Gal
 - 3.. CMP-SA-PEG, ST3Gal3

a-z, bb = 0; aa = 1; R' = -Gal-Sia-PEG.

FIG. 28D

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a-d, i, r-u (independently selected) = 0 or 1.

e-h (independently selected) = 0 to 4.

j-m (independently selected) = 0 or 1.

n, v-y = 0; z = 0 or 1.

R = polymer; R' = sugar, glycoconjugate.

FIG. 28E

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CHO, BHK, 293 cells, Vero expressed
interferon alpha-14C.

h = 1 to 3;

a-g, j-m, i (independently selected) = 0 or 1;

r-u (independently selected) = 0 or 1;

n, v-y = 0; z = 1.

↓ 1. CMP-SA-PEG, ST3Gal3

h = 1 to 3;

a-g, i (independently selected) = 0 or 1;

r-u (independently selected) = 0 or 1;

j-m, v-y (independently selected) = 0 or 1;

z = 1; n = 0; R = PEG.

FIG. 28F

Insect cell or fungi expressed
interferon alpha-14C.

a-d, f, h, j-n, s, u, v-y = 0;

e, g, i, r, t (independently selected) = 0 or 1;

z = 1.

↓ 1. GNT's 1,2,4,5, UDP-GlcNAc
2. Galactosyltransferase, UDP-Gal
3. CMP-SA-PEG, ST3Gal3

a-m, r-y (independently selected) = 0 or 1;

z = 1; n = 0; R = PEG.

FIG. 28G

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Yeast expressed interferon alpha-14C.
a-n = 0; r-y (independently selected) = 0 to 1;
z = 1; R (branched or linear) = Man,
oligomannose.

1. mannosidases
2. GNT's 1,2,4,5, UDP-GlcNAc
3. Galactosyltransferase, UDP-Gal
- 4.. CMP-SA-PEG, ST3Gal3

a-m, r-y (independently selected) = 0 or 1;
z = 1; n = 0; R = PEG.

FIG. 28H

NSO expressed interferon alpha 14C.
a-i, r-u (independently selected) = 0 or 1;
j-m, n, v-y = 0; z = 1.

1. CMP-SA-levulinic acid, ST3Gal3,
buffer, salt
2. H₄N₂-PEG

a-i, j-m, r-y (independently selected) = 0 or 1;
n = 0; z = 1; R = PEG.

FIG. 28I

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CHO, BHK, 293 cells, Vero expressed
interferon alpha-14C.

$h = 1 \text{ to } 3;$

$a-g, j-m, i$ (independently selected) = 0 or 1;

$r-u$ (independently selected) = 0 or 1;

$n, v-y = 0; z = 1.$

↓ 1. CMP-SA-PEG, $\alpha 2,8$ -ST

$h = 1 \text{ to } 3;$

$a-g, i, r-u$ (independently selected) = 0 or 1;

$j-m$ (independently selected) = 0 to 2;

$v-y$ (independently selected) = 1,

when $j-m$ (independently selected) is 2;

$z = 1; n = 0; R = PEG.$

FIG. 28J

CHO, BHK, 293 cells, Vero expressed
Interferon alpha-14C.

$a-g, j-m, r-u$ (independently selected) = 0 or 1;

$h = 1 \text{ to } 3; n, v-y = 0; z = 1.$

↓ 1. Sialidase

2. Trans-sialidase, PEG-Sia-lactose

$a-g, j-m, r-y$ (independently selected) = 0 or 1;
 $h = 1 \text{ to } 3; n = 0; z = 1; R = PEG.$

FIG. 28K

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CHO, BHK, 293 cells, Vero expressed
interferon alpha-14C.

$h = 1$ to 3;

a-g, j-m, i (independently selected) = 0 or 1;

r-u (independently selected) = 0 or 1;

n, v-y = 0; z = 1.

1. CMP-SA, α 2,8-ST

$h = 1$ to 3;

a-g, i, r-u (independently selected) = 0 or 1;

j-m (independently selected) = 0 to 40;

z = 1; v-y, n = 0.

FIG. 28L

Insect cell or fungi expressed interferon alpha-14C.

a-d, f, h, j-n, s, u, v-y = 0;

e, g, i, r, t (independently selected) = 0 or 1;

z = 1.

1. GNT's 1 & 2, UDP-GlcNAc

2. Galactosyltransferase,

UDP-Gal-linker-SA-CMP

3. ST3Gal3, transferrin

a, c, e, g, i, r, t, v, x (independently selected) = 0 or 1;

z = 1; b, d, f, h, j-n, s, u, w, y = 0;

R = transferrin.

FIG. 28M

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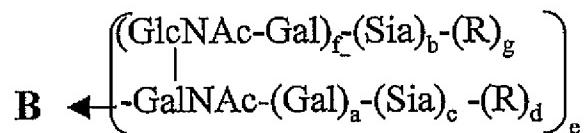
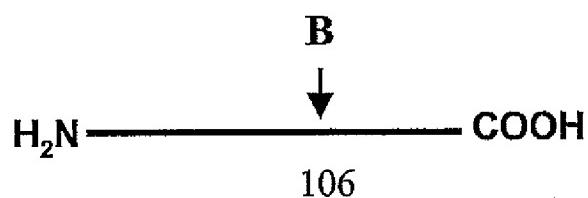
Insect cell or fungi expressed interferon alpha-14C.
a-d, f, h, j-n, s, u, v-y = 0;
e, g, i, r, t (independently selected) = 0 or 1; z = 1.

- ↓
1. endoglycanase
 2. Galactosyltransferase,
 UDP-Gal-linker-SA-CMP
 3. ST3Gal3, transferrin

i (independently selected) = 0 or 1;
a-h, j-m, r-z = 0;
n = 1; R' = -Gal-linker-transferrin.

FIG. 28N

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a-c, e, f (independently selected) = 0 or 1;
d, g = 0; R = polymer, glycoconjugate.

FIG. 28O

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CHO, BHK, 293 cells, Vero expressed
IF-alpha (2a or 2b).
a-c (independently selected) = 0 or 1;
e = 1; d, f, g = 0

↓
1. Sialidase
2. CMP-SA-PEG, ST3Gal1

a-d (independently selected) = 0 or 1;
e = 1; b, f, g = 0; R = PEG.

FIG. 28P

Insect cell expressed interferon alpha (2a or 2b).
a, e (independently selected) = 0 or 1;
b, c, d, f, g = 0.

↓
1. Galactosyltransferase, UDP-Gal
2. CMP-SA-PEG, ST3Gal1

a, c, d, e (independently selected) = 0 or 1;
b, f, g = 0; R = PEG.

FIG. 28Q

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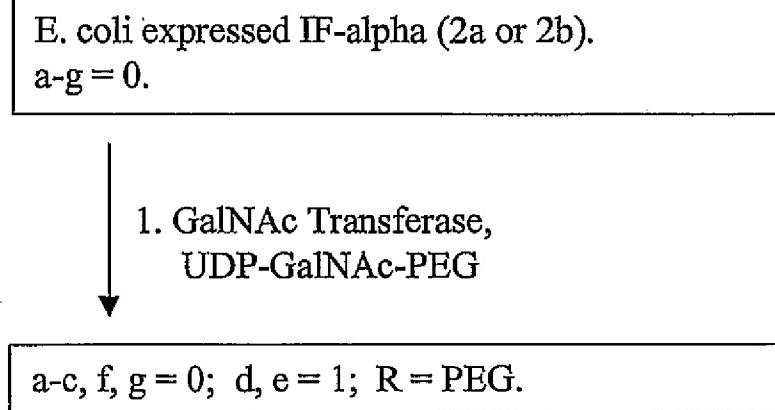


FIG. 28R

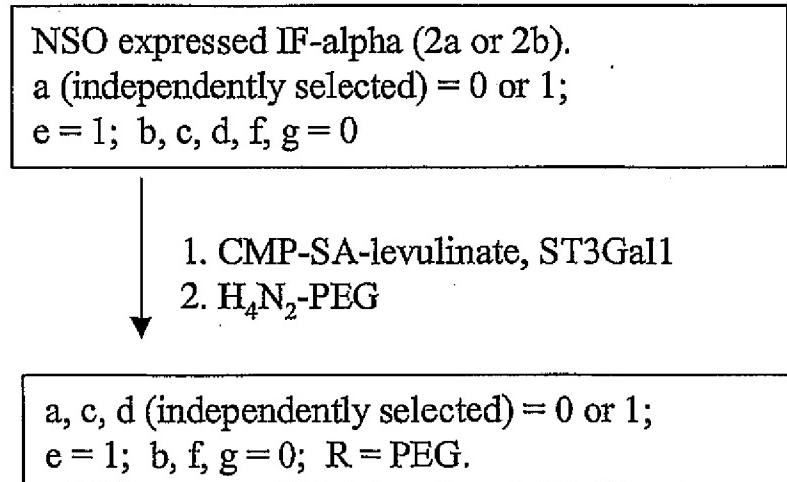


FIG. 28S

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E. coli expressed IF-alpha (2a or 2b).
a-g = 0.

↓
1. Endo-N-acetylgalatosamidase
(synthetic enzyme),
PEG-Gal-GalNAc-F

a, d, e = 1; b, c, f, g = 0; R = PEG.

FIG. 28T

E. coli expressed IF-alpha (2a or 2b).
a-g = 0.

↓
1. GalNAc Transferase, UDP-GalNAc
2. sialyltransferase, CMP-SA-PEG

b, d = 0 or 1; e = 1; a, c, f, g = 0; R = PEG.

FIG. 28U

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CHO, BHK, 293 cells, Vero expressed IF-alpha
(2a or 2b).
a-c, f (independently selected) = 0 or 1;
e = 1; d, g = 0

- ↓
1. Sialidase
2. CMP-SA-PEG, ST3Gal1 and ST3Gal3

a-d, f, g (independently selected) = 0 or 1;
e = 1; R = PEG.

FIG. 28V

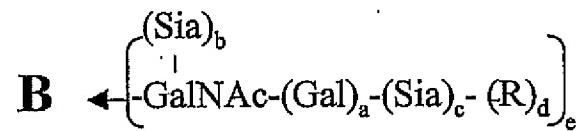
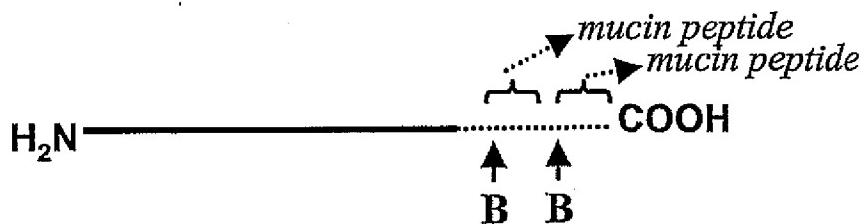
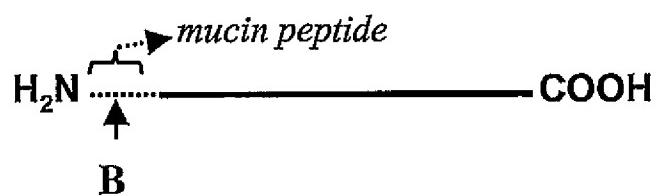
CHO, BHK, 293 cells, Vero expressed
IF-alpha (2a or 2b).
a-c, f (independently selected) = 0 or 1;
e = 1; d, g = 0

- ↓
1. Sialidase
2. CMP-SA-linker-SA-CMP,
,ST3Gal1
3. ST3Gal3, transferrin

a-d, f (independently selected) = 0 or 1;
e = 1; R = transferrin; g = 0.

FIG. 28W

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a-c, e (independently selected) = 0 or 1;
d = 0; R = polymer, glycoconjugate.

FIG. 28X

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CHO, BHK, 293 cells, Vero expressed
interferon alpha-mucin fusion protein.
a-c, e (independently selected) = 0 or 1; d = 0



1. Sialidase
2. CMP-SA-PEG, ST3Gal1

a-d, e (independently selected) = 0 or 1;
R = PEG.

FIG. 28Y

Insect cell expressed interferon alpha-mucin fusion protein.
a, e (independently selected) = 0 or 1;
b, c, d = 0.



1. Galactosyltransferase, UDP-Gal-PEG

a, d, e (independently selected) = 0 or 1;
b, c = 0; R = PEG.

FIG. 28Z

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E. coli expressed interferon alpha-mucin
fusion protein.

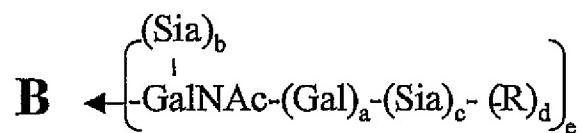
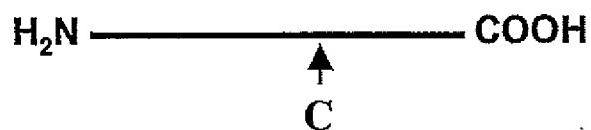
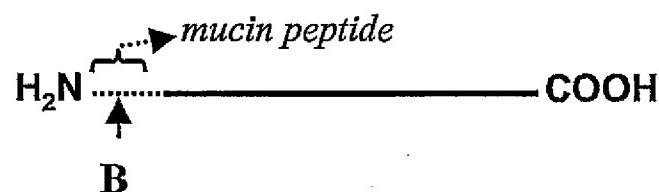
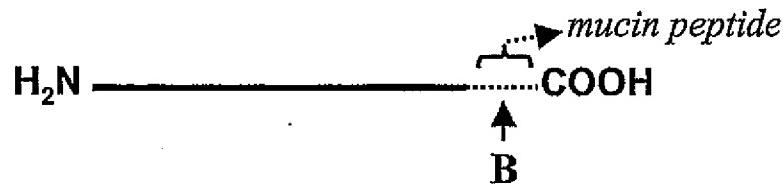
a-e = 0.

- ↓
1. GalNAc Transferase, UDP-GalNAc
2. CMP-SA-PEG, sialyltransferase

c, d, e (independently selected) = 0 or 1;
a, b = 0; R = PEG.

FIG. 28AA

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a-c, e (independently selected) = 0 or 1;
 d = 0; R = polymer, linker.

FIG. 28BB

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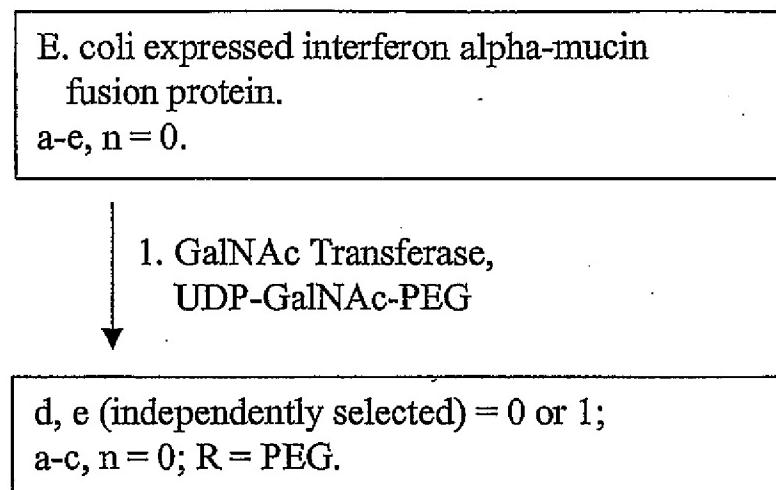


FIG. 28CC

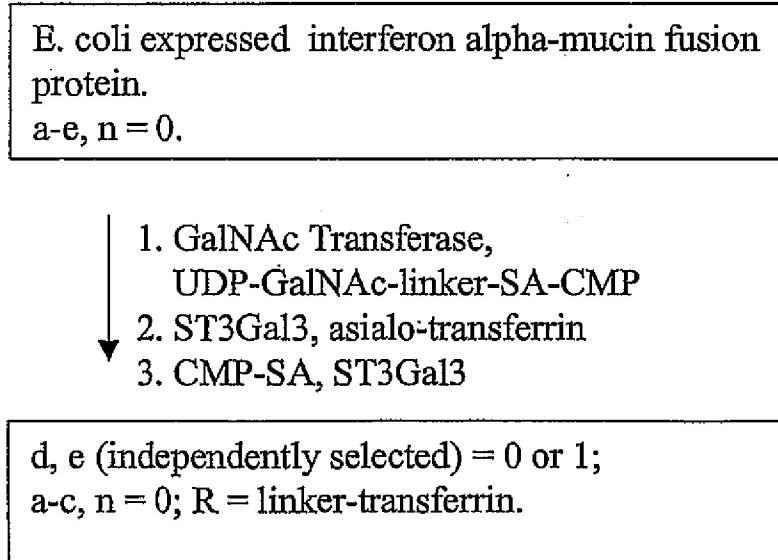


FIG. 28DD

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E. coli expressed Interferon alpha (no fusion).
a-e, n = 0.

1. NHS-CO-linker-SA-CMP
2. ST3Gal3, transferrin



a-e = 0; n = 1; R' = linker-transferrin.

FIG. 28EE